Design Access Statement

CMIQ Plots 9 & 12

Contents

- Client Team

Client - Cumberland County Council

Client Agent - Avison Young

- Design Team

Contractor - Morgan Sindall Construction

Architecture - NORR Consultants

Structure and Civils – BGP Consulting

Building Services – JH Partners

Landscape Design - One Environments

Fire Engineering – OFR Consultants

Transport & Ecology –Tetra Tech

Planning Consultant – Avison Young

Acoustic Engineering – Miller Goodall

Principal Designer – KOK Surveyors

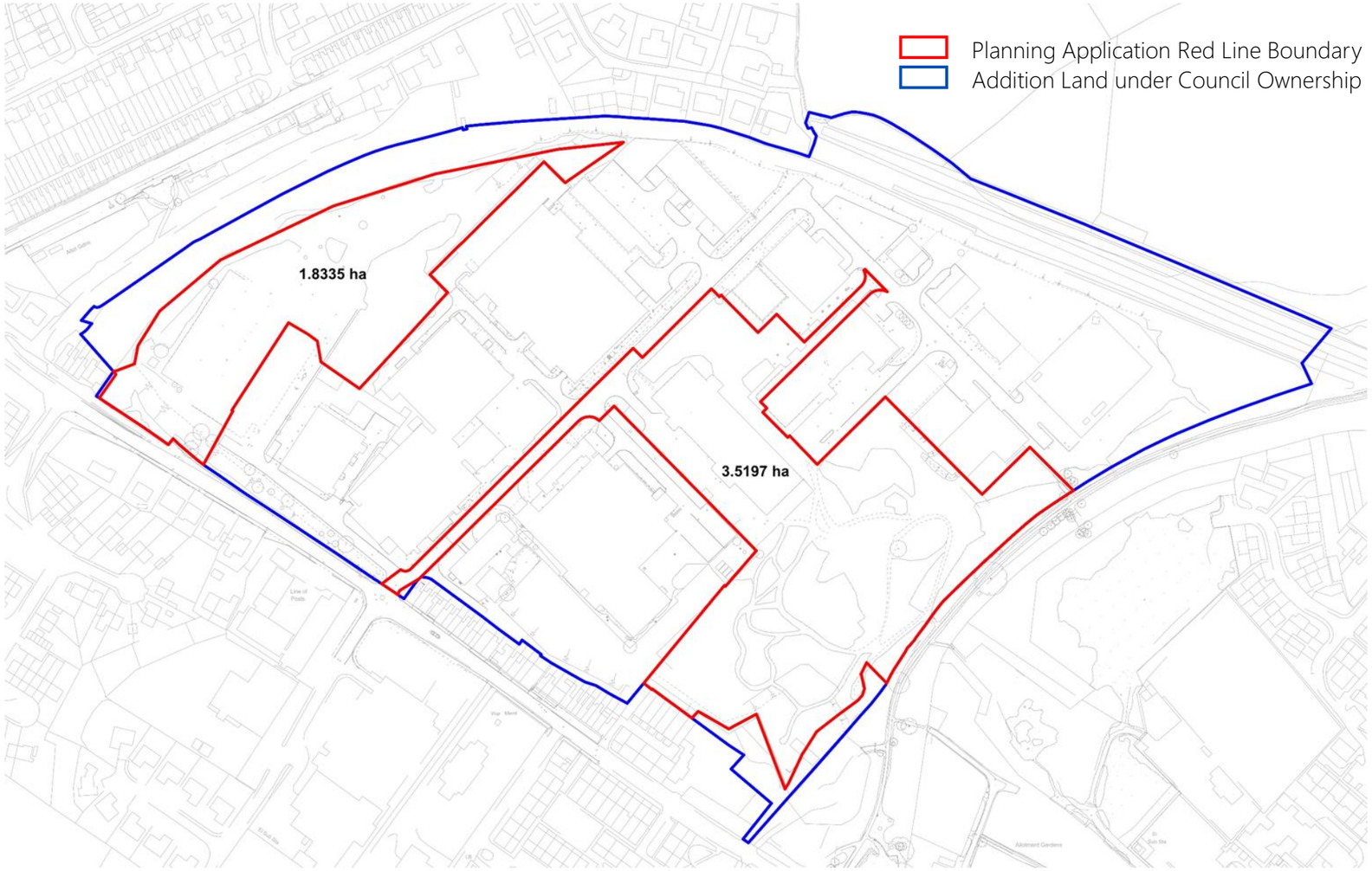
Introduction

This is the design and access statement for the full planning application for the proposed development at Plots 9 & 12 at Leconfield Industrial Estate.

A full design and construction team has been involved in formulating these proposals and the whole team can be seen on page 2. Morgan Sindall are responsible for the design and build of the business units in collaboration with Cumberland Council.

This document should be read in conjunction with all of the planning application documents which are submitted with this application.

The Design and Access Statement presents proposals by Cumberland Council for two new blocks of business accommodation, including the background to the development scheme, design aspirations and key features of the development.



STATUS A4 - AUTHORISED (MSC) - no Comments

Introduction

Cleator Moor has seen growth and decline of major industrial industries throughout its time – which has firstly shaped but later left long-term scars on the town.

Cleator Moor town developed rapidly in the 19th Century, as the Industrial Revolution demanded more and more coal, limestone and high-grade iron ore. Early in the 20th Century supplies began to decline. With the deterioration of traditional industries and the resulting high rate of unemployment, the town's economy is now dependent on the nearby Sellafield Complex, which provides jobs to around half the town's people. Sellafield is now moving into a process of decommissioning with a move towards cleaning up the site which will lead to a slow but inevitable reduction in its economic activity.

The northwestern residential area of Cleator Moor is disconnected from the town centre by Leconfield Industrial Estate and the neighbouring swathe of woodland. The site therefore occupies a prime central location within the town, between the two main residential areas of the settlement.

This proposal is part of the wider regeneration of Leconfield Industrial Estate. In 2019, Copeland Borough Council (CBC), now Cumberland Council, successfully secured £7.7m for the first phase of the Leconfield redevelopment through the government's Town Deal Initiative. A further £10.3m was secured from the NDA/Sellafield in addition to £2.4m spent acquiring the site using funding from the Cumbria LEP, and CBC, totalling £21m.

In 2022, CBC submitted a Levelling Up Fund "LuF" Round 2 (LuF2) bid for a further £20m to support the redevelopment of the remaining land withing the Leconfield site boundary. It was announced on 19th January 2023 that this funding bid was successful, securing a further /£20m funding for the project with a current spend deadline of 31 March 2025.

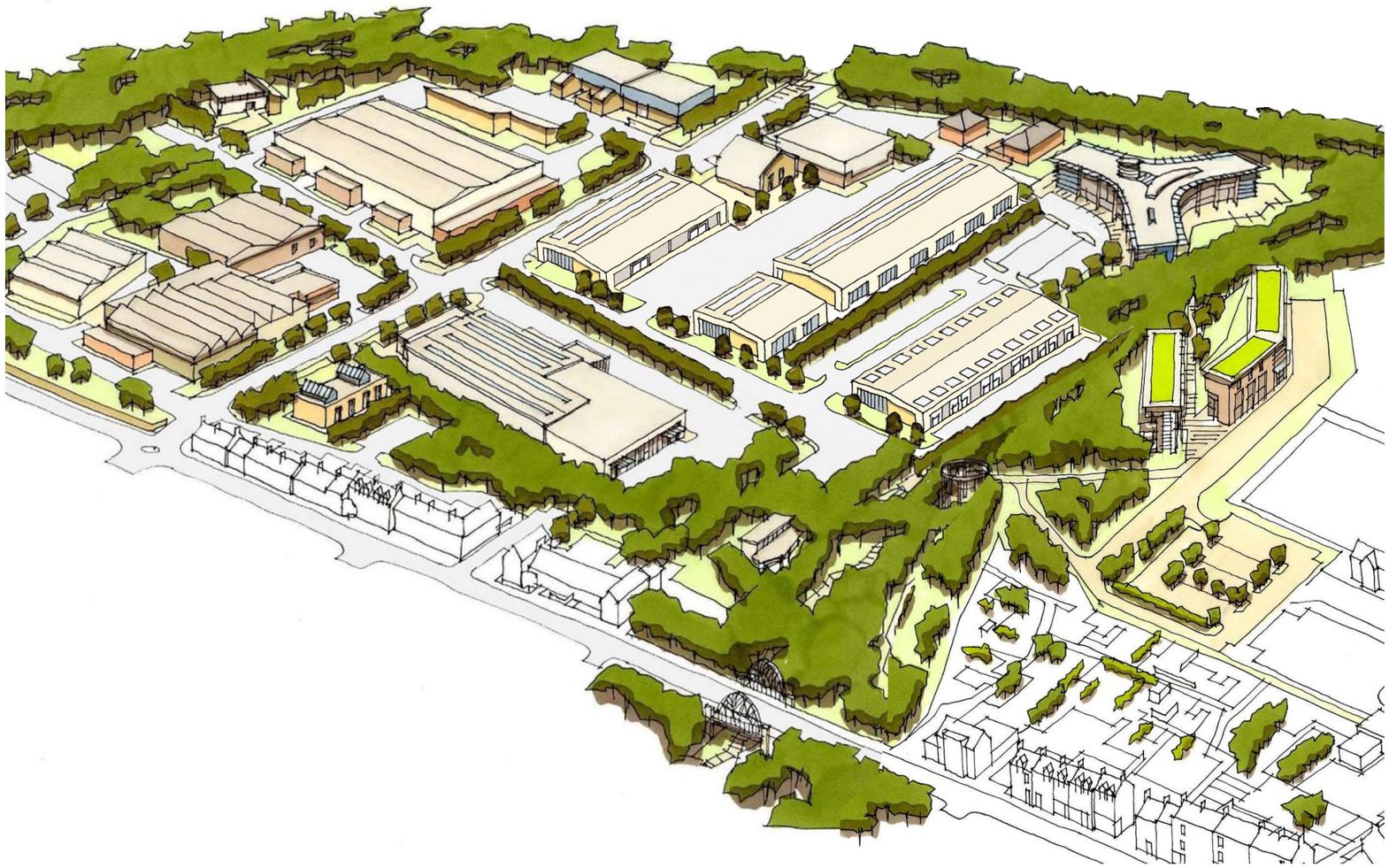
STATUS A4 - AUTHORISED (MSC) - no Comments

Vision

The Cleator Moor Innovation Quarter (CMIQ) is an area of Cleator Moor that includes the Leconfield Industrial Estate, a 17.6ha area of land strategically located between the Town Centre and the north-western area of Cleator Moor.

It will be home to a 'business cluster' that will diversify the West Cumbrian economy away from the dependency on Sellafield by building upon existing supply chain, knowledge and engineering capabilities in the new nuclear and clean energy sectors with a focus on collaboration, innovation and diversification. By concentrating on a core of solutions driven engineering, Cleator Moor can play a major part in the UK's drive to continue to be an engineering and creative world leader, which will benefit the town and wider region long term. The proposed development is a once in a lifetime improvement that will have a sustainable benefit and a far-reaching impact for many generations to come, bringing in new prosperity to the town.

The LuF2 project will play a key part of realising the ultimate vision for the CMIQ proposals, providing modern, flexible space for new and emerging businesses, whilst improving the quality of the local built environment and public spaces to change perception of the Estate and the wider town.



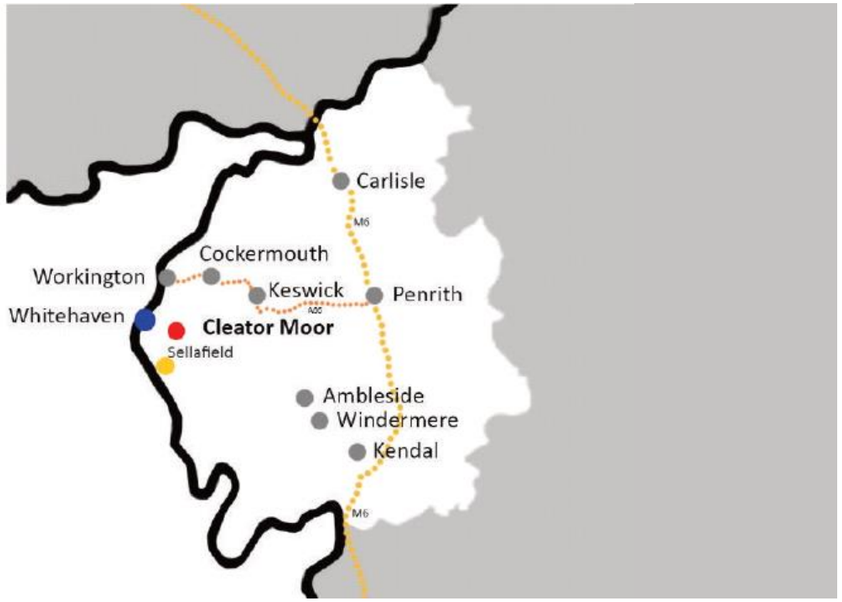
STATUS A4 - AUTHORISED (MSC) - no Comments

1
CONTEXT AND IDENTITY

Context

Site Location, Local and Wider Context

This Design and Access Statement has been prepared in support of a full planning permission for the development of Leconfield Industrial Estate, West Cumbria.



The site for this development is the Leconfield Industrial Estate within the town of Cleator Moor, West Cumbria, UK. Cleator Moor is located approximately 4 miles east of Whitehaven which has national rail connections and a good A road network, including the following:

- A595 link to Whitehaven (4 miles)
- A595 link to Sellafield (8 miles)
- Link to West Lakes Science and Technology Park (3 miles)
- A595 and A5086 linking to the surrounding area and beyond (M6)

The Leconfield Industrial Estate is highlighted in red and is situated approximately 750metres west of the Cleator Moor Civic Core on the B5295, Leconfield Street.

The site is currently home to manufacturing, repair and education facilities, however, has been in substantial decline over recent years.

STATUS A4 - AUTHORISED (MSC) - no Comments

Context

Site Location, Local and Wider Context

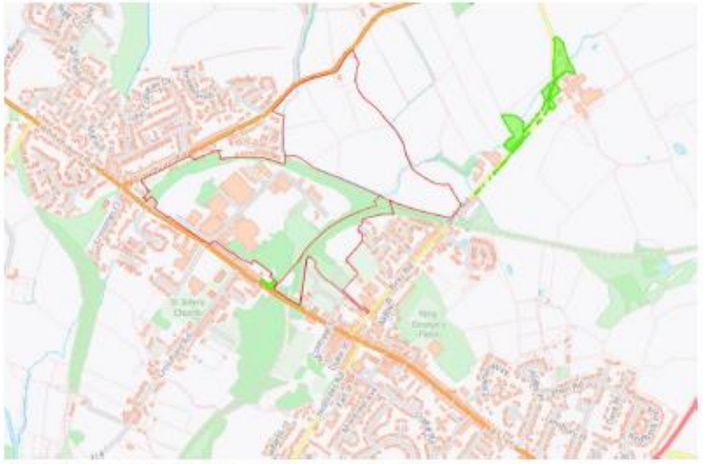
STATUS A4 - AUTHORISED (MSC) - no Comments

Identity

Site Location, Local and Wider Context

Conservation Area (shown in blue)

Listed Buildings (shown in red)



Tree Preservation Orders (shown in green)

Flood Zone 2 (shown in light blue)

Flood Zone B (shown in dark blue)

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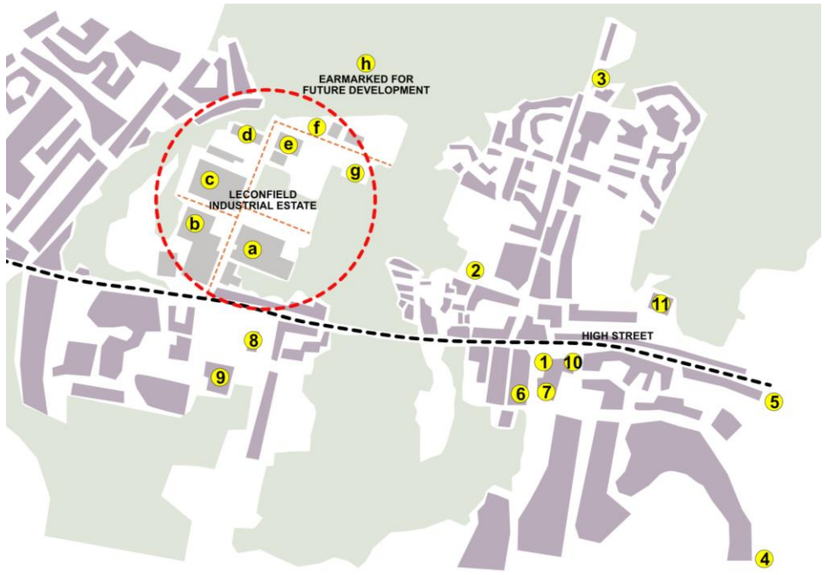
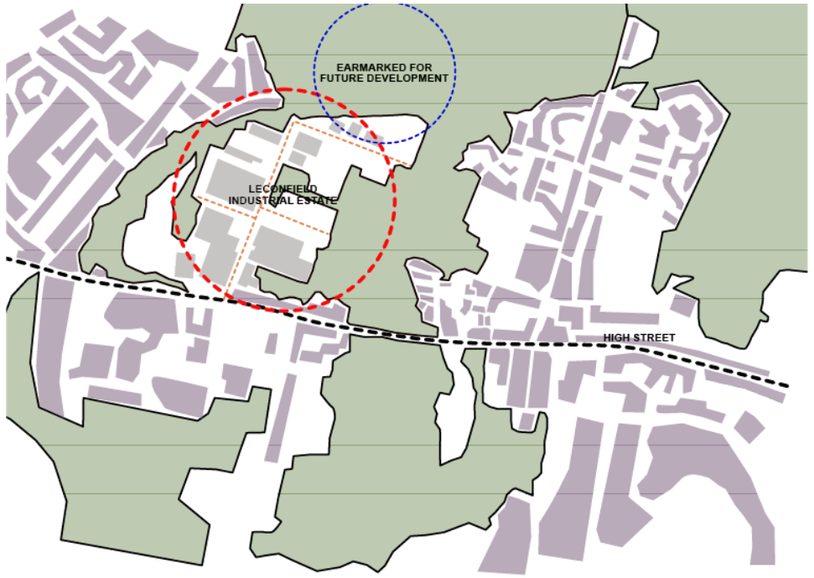
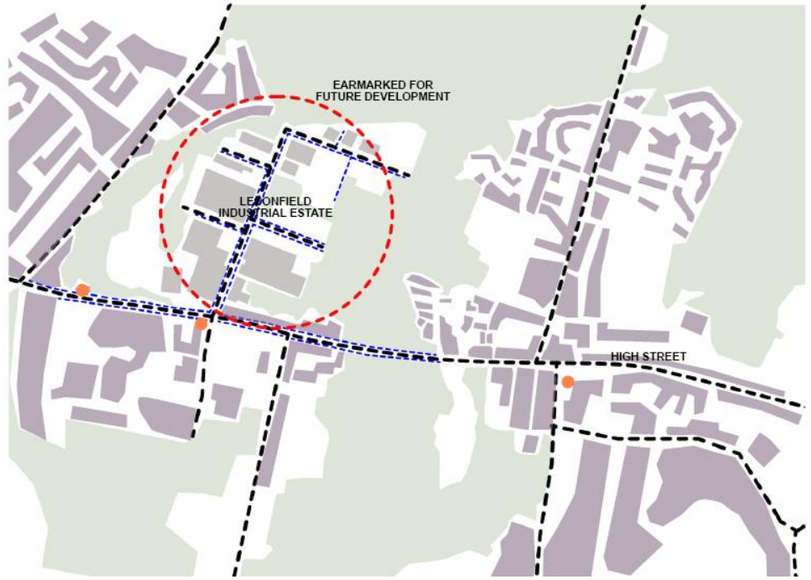
Context

Site Location, Local and Wider Context







Existing Community Facilities

1 - Cleator Moor Town Council
2 - Cleator Moor Celtic Football Club
3 - Ennersdale Scout Centre
4 - St. Patrick's Catholic Primary School
5 - Montreal C of E Primary School
6 - Citizens Advice Bureau
7 - Cleator Moor Civic Hall
8 - St. John the Evangelist Church
9 - Retail
10 - Cleator Moor Library
11 - Bowling Green

Occupiers of Leconfield

a - Capital Aluminium
b - Brannan's
c - Centre of Excellence
d - JD Autos
e - Forth
f - Little Explorer's Nursery
g - BOC
h - Area of Future Development

Surrounding Landscape

The existing site currently is surrounded by a large area of green space, some of which will be developed as part of future development highlighted in the masterplan.

Active Movement

Bus Stops

Pedestrian Routes

Vehicular Zones

STATUS A4 - AUTHORISED (MSC) - no Comments

Context

Value Heritage, Local History and Culture

Local Listed Buildings & Cleator Moor Conservation Area

1. Jacktrees Road Veranda 1856, Grade II listed

2. St John the Evangelist Church 1872, Grade II listed

4. Local Government Offices 1879, Grade II listed

3. 13-20 High Street late 19th Century, Grade II listed

5. Library 1906, Grade II listed

STATUS A4 - AUTHORISED (MSC) - no Comments

Context

Value Heritage, Local History and Culture

Cleator Moor boasts a prosperous history dating back to the Industrial Revolution where it was transformed from a quiet village to a thriving town, prospering from the rich Iron Ore underground. This pride is still evident today as the town embark on its latest regeneration.

It's colloquially referred to as 'Little Ireland' due to the droves of Irish Immigrants who travelled to Cleator Moor during this time looking for work. However, the closure of the mine led to the decline of the town and substantial rises in unemployment. Since then, residents predominantly rely on neighbouring Sellafield and agriculture for employment. The Leconfield Industrial Estate provides important employment activity within the town, however some of the site has fallen into disuse.

Cleator Moor has an attractive civic hub, although some of the buildings are in a dilapidated state and in need of refurbishment and investment. Recent investment in the town includes the Health Centre and Howgill Family Centre on Birks Road.

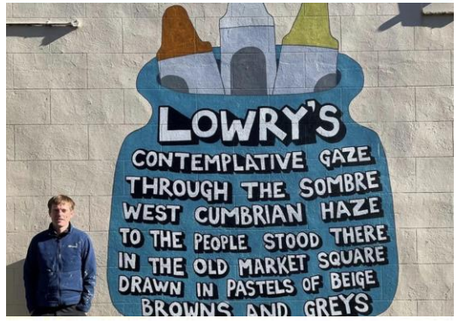
One of the most famous national cycle routes, the 'Coast to Coast' (C2C) passes through Cleator Moor along the old railway line under the Phoenix Bridge and passes just to the east of the Leconfield Industrial Estate.

The surrounding countryside is world class with the edge of the Lake District National Park a mile to the east. Nearby Dent Fell to the southeast can be walked from Cleator Moor itself and Ennerdale Bridge at the head of the Ennerdale Mountain Valley is only 4 miles drive to the east.

The charm and character of Cleator Moor lies in its links with art and nature. The Dent Fell forms the backdrop for the industrial town and can be seen directly from Leconfield Industrial Estate.

Many artists have frequented Cleator Moor over the years, most notably Lowry who painted Cowles Fish Shop during one of his many visits to West Cumbria. This and the work of other artists are continued to be celebrated today thanks to people like 'Angry Dan' who has created murals around the town with illustrations and poetry, depicting the significance of Cleator Moor as a location for artistic inspiration.

C2C Phoenix Bridge



Angry Dan

Ennerdale

Cleator Moor Iron Works c.1880 (Image from Little Ireland)

Civic Hub

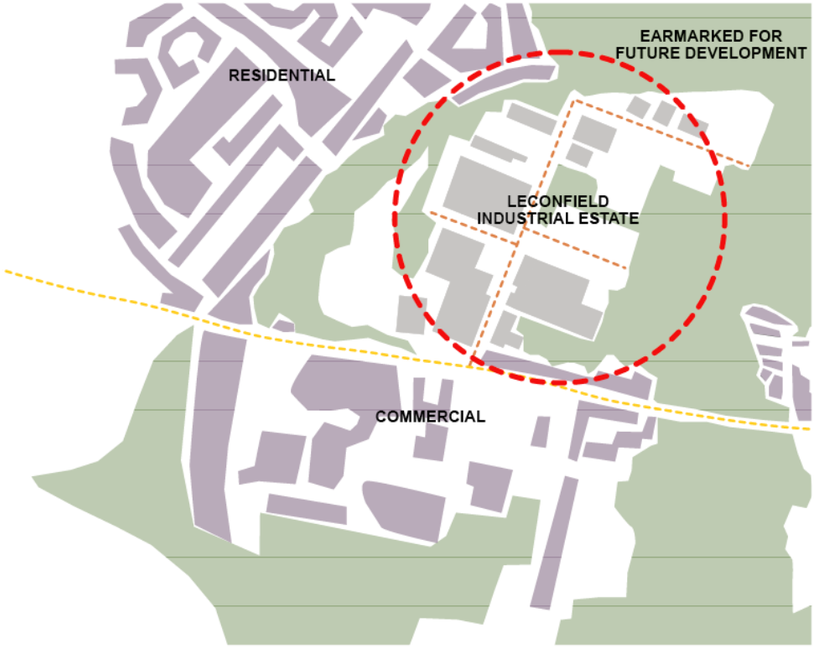
STATUS A4 - AUTHORISED (MSC) - no Comments

Identity

Existing Local Character and Identity

The site is screened to the north, east and west by woodland (including C2C) that separates it from predominantly residential areas. Pockets of community and commercial use adjoin the southern and western boundaries including supermarket, St John the Evangelist Church, health centre and Cleator Moor Celtic Football Club. To the north-east is agricultural land. The built environment is a mixture of one and two storey and have a varied materiality of pebble dash render, brick and metal cladding.

Further away from the site is the main town centre and countryside that separates it from surrounding villages including nearby Cleator and the port town of Whitehaven.



Nearby St John the Evangelist Church

Existing view west along Leconfield Street

Existing view north of housing on Leconfield St.

Nearby housing of various styles

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Identity

Leconfield Industrial Estate

The Leconfield Site has been used for an Industrial Estate from the 1980s. and provides important employment activity within the town however over the last 10 years it has seen a significant decline, and has been underutilised for many years, with the demolition of c. 40-50% of the buildings progressively on the site. This can be seen in the aerial photographs opposite, which are dated 2003,2008, 2018 and 2020. (Images from Google Earth)

There is an ambition to regenerate this regionally important site and also help create sustainable long-term employment by creating a new centre for engineering excellence.

The proposal would tie into existing strengths in local industry and help to create a world leading centre for innovation and development.

It is the intension that the development on the site should become a community for engineering research and development while at the same time link with other initiatives – such as the BEC led Buzz Station and Watershed in Whitehaven.

All of this will help local start-up businesses to grow and at the same time assure they remain in the area.

Current proposals include the following:

- Create an Engineering Community Hub – currently RIBA Stage 4
- Regeneration of Leconfield Industrial Estate maintaining and expanding employment use
- Buildings of appropriate size and flexibility to meet emerging demand
- Creating an attractive environment where people want to be
- Building and landscape design which promotes inclusivity, accessibility and permeability.

Aerial Photograph, 2003

Aerial Photograph, 2008

Aerial Photograph, 2018

Aerial Photograph, 2020

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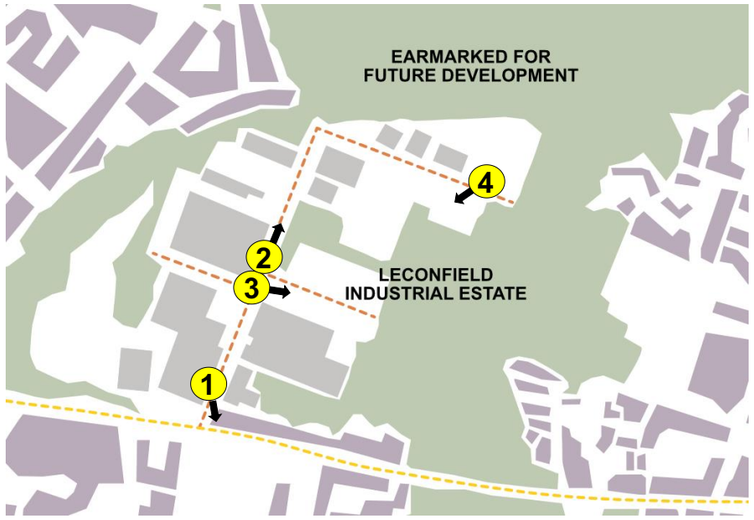
Identity

Leconfield Industrial Estate



1. Existing junction to be retained and improved following Highway Engineering Study

2. Existing road and services distribution to be retained and improved

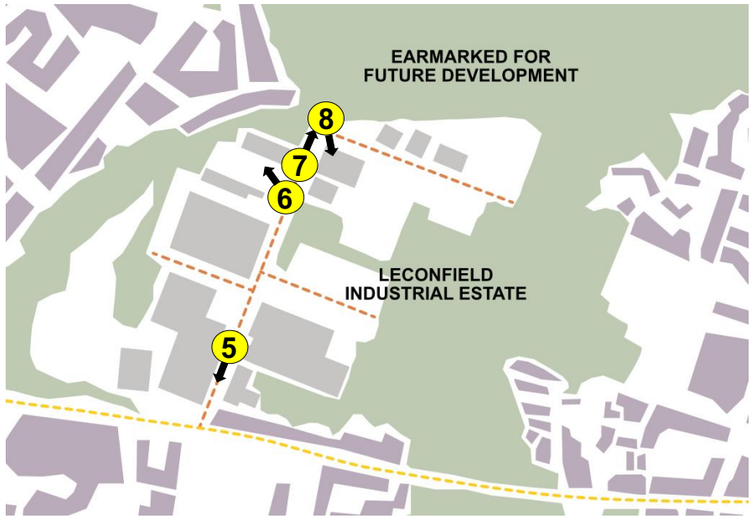
3. Views towards National Park: Dent Fell (right) and distant views to the Fells beyond Ennerdale Bridge (left)

4. Vacant sites allow for redevelopment without major disruption to existing employment uses

STATUS A4 - AUTHORISED (MSC) - no Comments

Identity

Leconfield Industrial Estate



5. Existing main access road to be retained and improved.

6. Existing employment to be maintained with minimal disruption.

7. Opportunity for link to wider community

8. Existing employment occupiers to be maintained

Identity

Leconfield Industrial Estate

A key element of the new vision for Leconfield Industrial Estate are the proposed works to Plots 9 & 12. The current estate is in need of major development to attract new businesses to the town. Existing tenancy agreements are a limiting factor to a full clean slate for the estate, and it has been decided that the majority of existing tenants will be retained with no changes to their plots or current use. Many of these are running businesses directly related to the solutions driven engineering and manufacture of components. The table below shows all of the existing and retained tenants as well as current uses for each plot. The considerable size vacant central plots of 9 & 12, in conjunction with the Hub, represent an initial opportunity to create a new identity for the estate and influence its future. These developments will go someway to make the site an attractive proposition for investment and regeneration.

Plots 9 & 12 were decided to provide accommodation for new and emerging businesses to compliment and support the wider Cleator Moor Innovation Quarter as a thriving new business cluster. The units would be flexible part double height / part single storey light industrial spaces.

PLOT	USE CLASS	OCCUPIER
E1	B2	Brannan
E2	B2	Rowlands Industries
E3	B2	Capalex
E6	B2	Forth Eng / SL
E8	B2	Forth Engineering
E10(A-D)	B2	Various
E15(A-H)	Various	Various
E16	E(f)	Little Explorers PreSchool Ltd
E17(A-B)	B8 / E(g)(i)	Brockbank, Curwen, Caine & Hall
E18	N/A	Vacant
E20(A-B)	Various	Various

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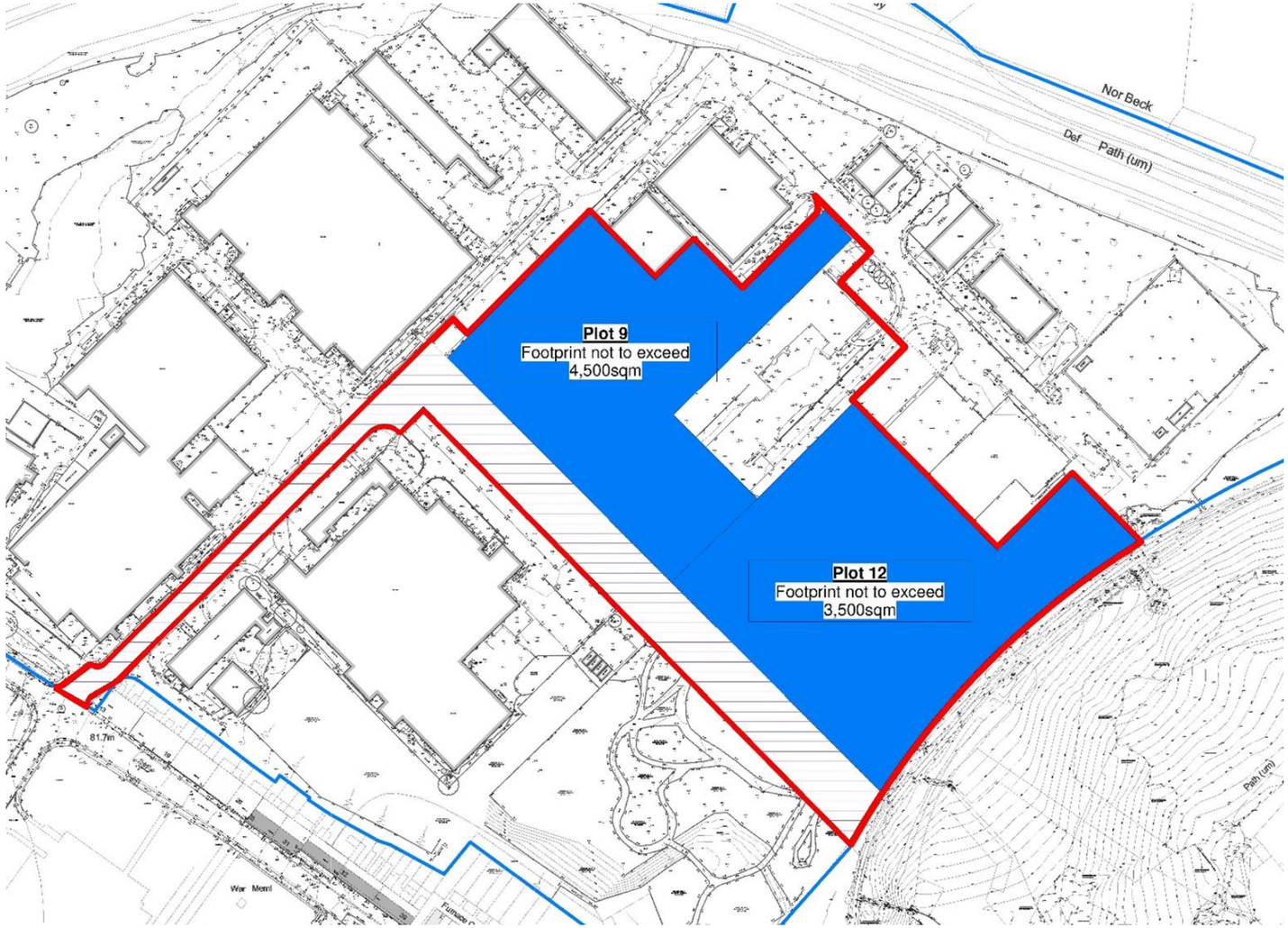
Identity

Leconfield Industrial Estate

Plots 9 & 12 were new plots formed from the vacant central zone at the heart of the estate. An existing plot entrance, off the north/ south main arterial road, will be extended to form a new access road for use by both plots. Works will involve an element of land clearance to the east.

Initial density was determined that the combined plots building footprints would not exceed 8000sqm. Height would be restricted to 15m (Plot 9) and 18m (Plot 12) which would allow for double height workshop space and mezzanine floors within each business unit.



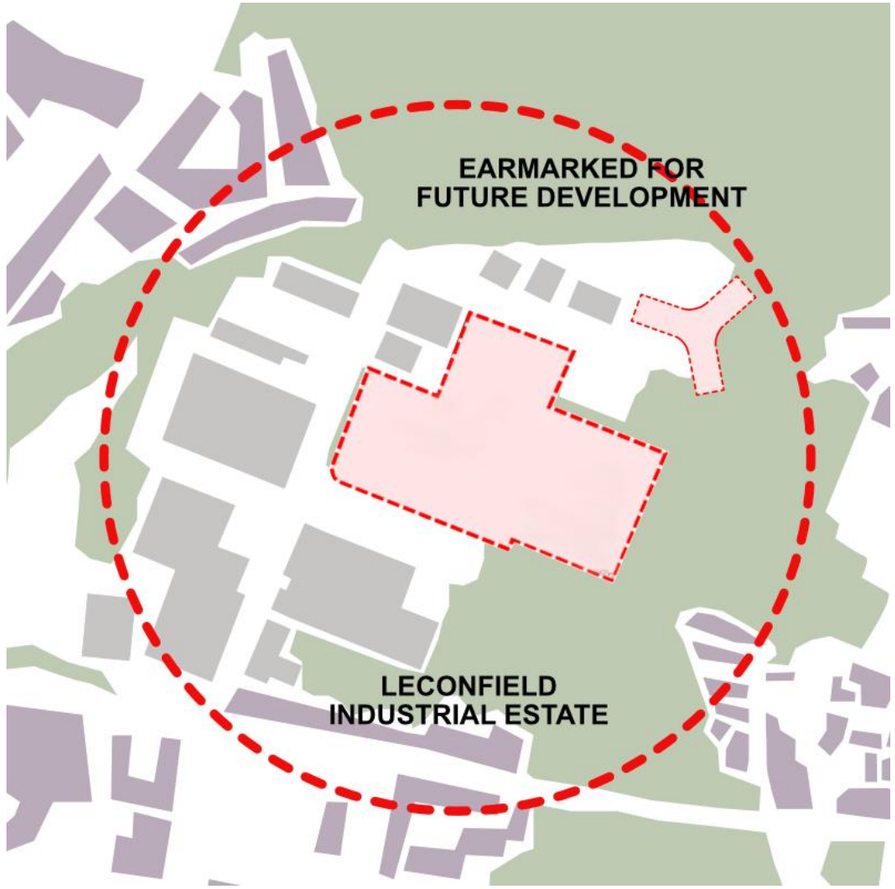
**Note – Not current red line boundary*

STATUS A4 - AUTHORISED (MSC) - no Comments

Identity

Leconfield Industrial Estate

Existing site conditions on Plots 9 & 12 are the remnants of previous buildings floor slabs, hard standing and scrub land. Further detail is contained within the ecology section.



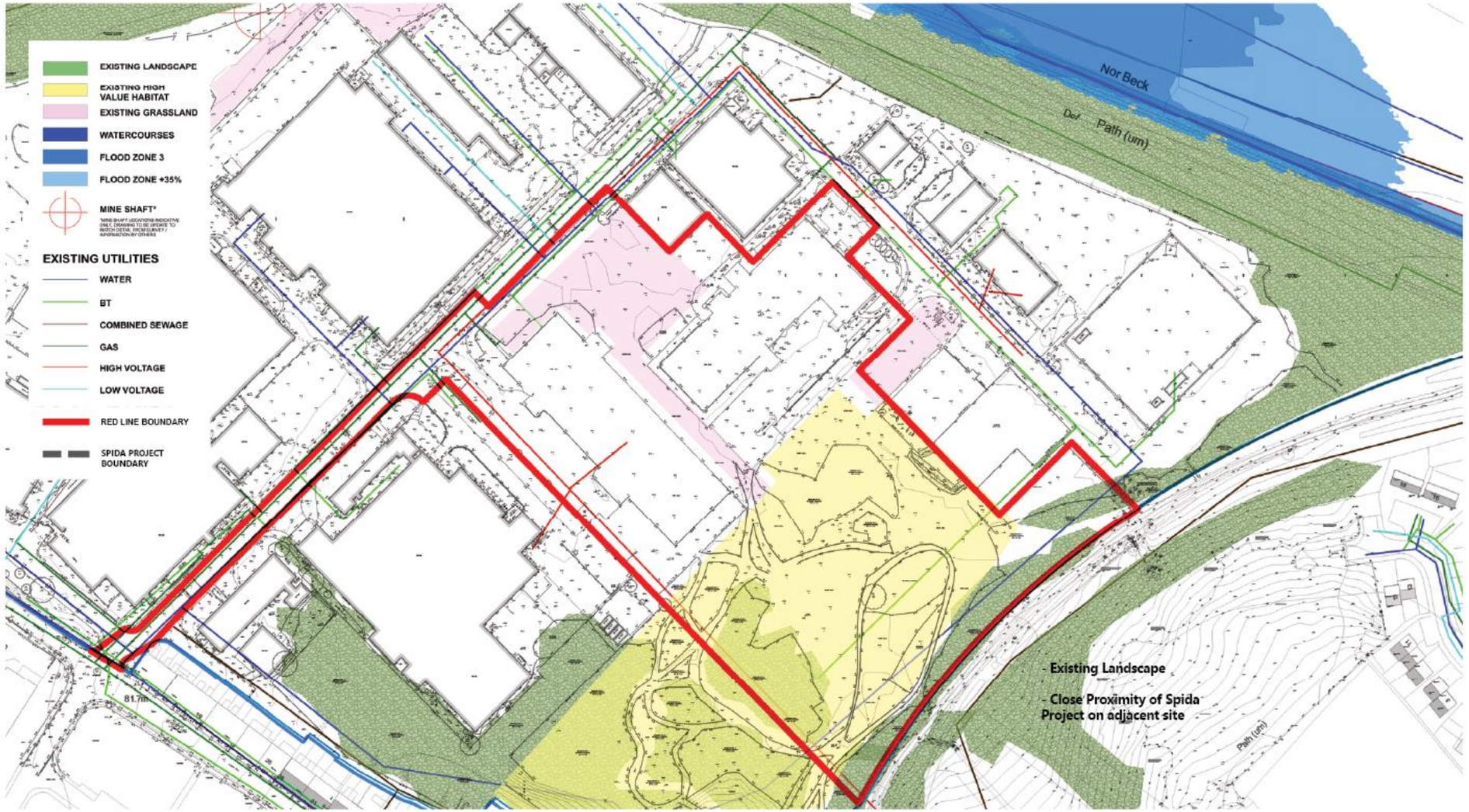
Plots 9 & 12 – South-West corner looking North-East

Plots 9 & 12 – Central North looking South-West

STATUS A4 - AUTHORISED (MSC) - no Comments

Identity

Leconfield Industrial Estate



*Note – Not current red line boundary

STATUS A4 - AUTHORISED (MSC) - no Comments

2
BUILT FORM

Built Form

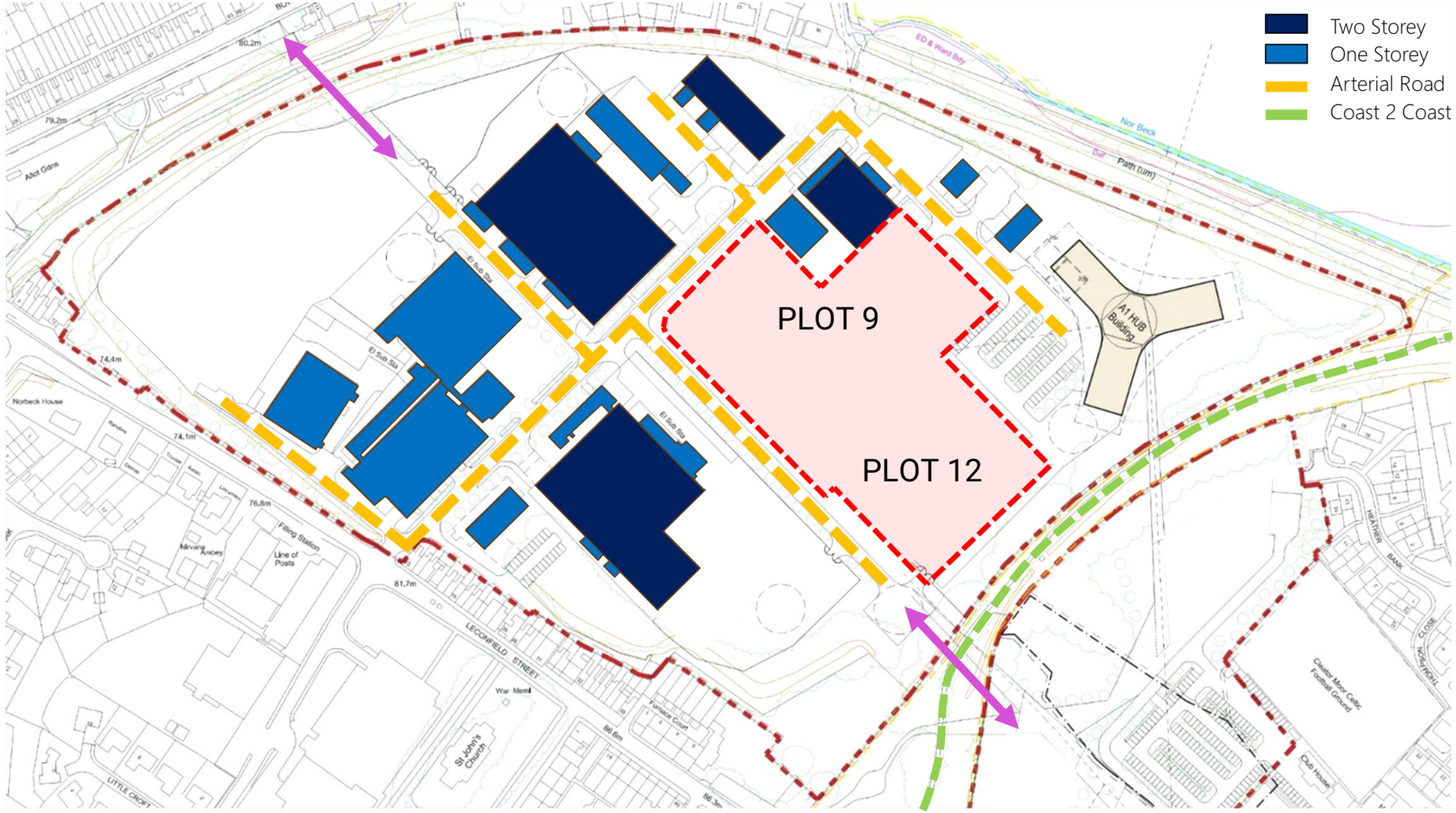
Site Opportunities

Buildings on site are arranged around the simple orthogonal arterial road system that includes key service distribution. They are a mix of one and two storey volumes, with a number an amalgam with vaulted pitched roofs. The architecture is dated and utilitarian and unfortunately neglected in areas. It is felt that investment and a rebrand would make it a more attractive proposition for commercial opportunity and regeneration in the town.

Functions of existing operating businesses are complimentary and enable the development to build on strong foundations. The approved Hub scheme to the north-east of the site will help galvanise collaboration.

Community connections for the site and its general permeability is a shortcoming. The adjacent Coast to Coast route, residential estates and community buildings represent opportunities for integration and a stronger bond.

Plot 9 & 12, in conjunction with the Hub, represent an opportunity to reimagine the industrial estate for the future.



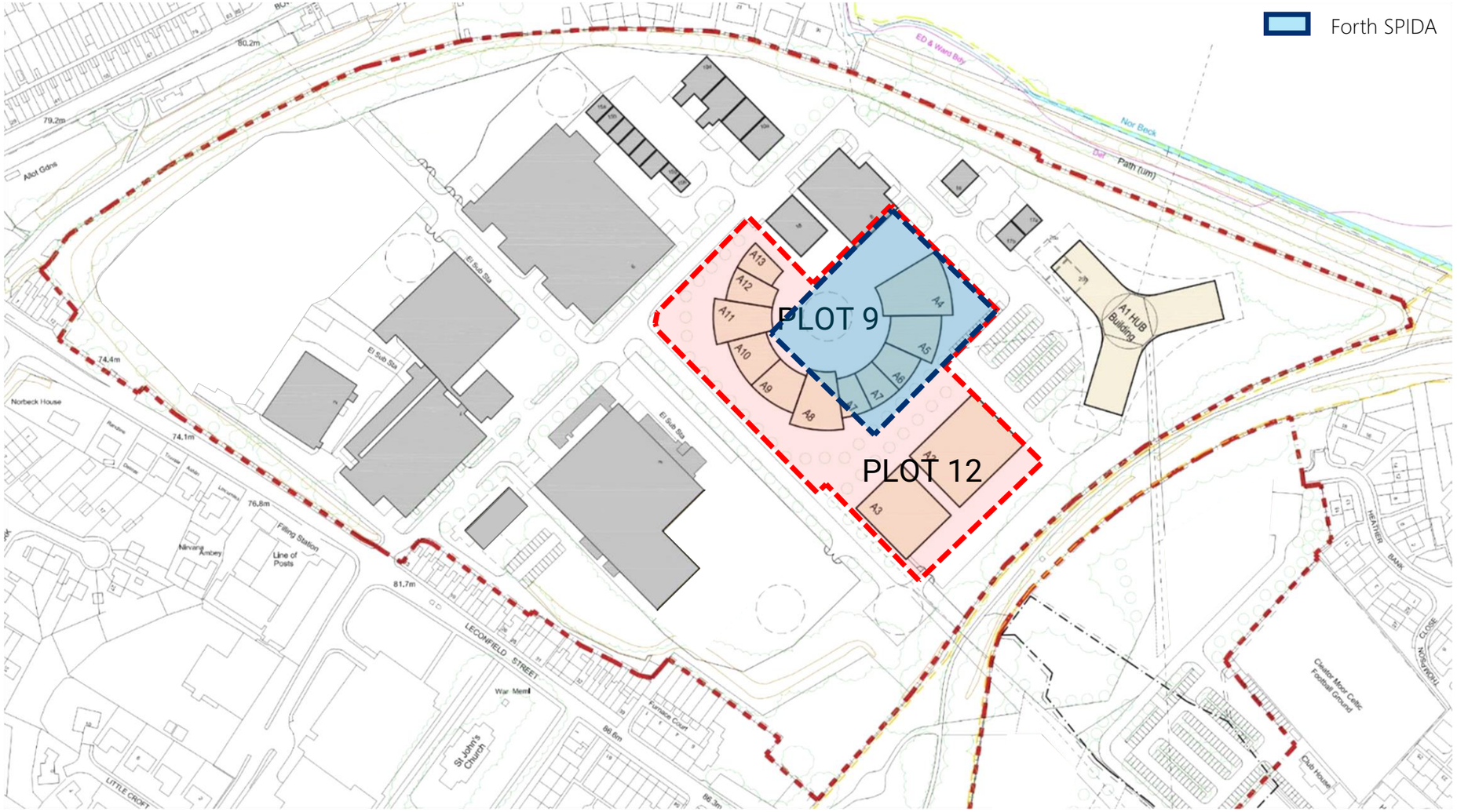
STATUS A4 - AUTHORISED (MSC) - no Comments

Built Form

Site Arrangement

The original masterplan identified the vacant Plots of 9 & 12 as offering potential for new build industrial; units suitable for start-up businesses and grow-on units. The original intent was for Plot 12 to provide simple double height spaces which could be reconfigured in a variety of ways, with strong connection with the new Hub building to the north-east. Plot 9 was to offer larger double fronted units arranged in a 'horseshoe' layout around a central service courtyard.

Early in the design process a temporary planning permission was granted for the Forth Engineering SPIDA Project, a facility to test an innovative robotic demolition of a mock chimney. The trial is to assist the ongoing decommissioning works at the nearby Sellafield plant. The extent of this facility compromises the available land, indicated in blue adjacent, on Plot 9 and therefore the project needed further development to coordinate with this constraint.



STATUS A4 - AUTHORISED (MSC) - no Comments

Built Form

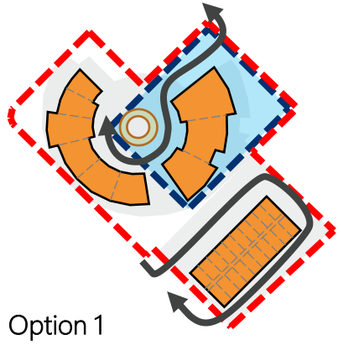
Site Arrangement

An option appraisal considering phasing, arrangement, provision and form was carried out to assess the impact of the SPIDA Project. Each of the three options shown demonstrated a possible solution to the imposed constraint. Option 1 sought to retain the original design intent of the 'horseshoe' whilst options 2 & 3 introduced a more orthogonal efficient arrangement of linear blocks that reinforce the north-south urban grain.

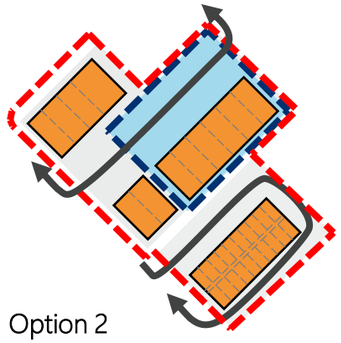
Option 2 was chosen by Cumberland Council and the key project advisors on its balance of efficiency in terms of cost / construction, ease of access/servicing and legibility in terms of block arrangement. The scheme responds pragmatically to the SPIDA site constrain whilst maximising the floor area requirements established within the LuF2 funding criteria.

A provision review followed that determined the future development portion (shown pink) would be removed from the project scope. A further EY viability review decided the smaller Plot 9 unit (shown purple) would also become a future development zone.

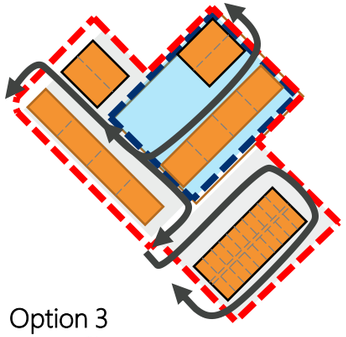
The site arrangement provided landscape areas that could be developed to create pedestrian routes to make it permeable and connect to the context, C2C and new Hub.



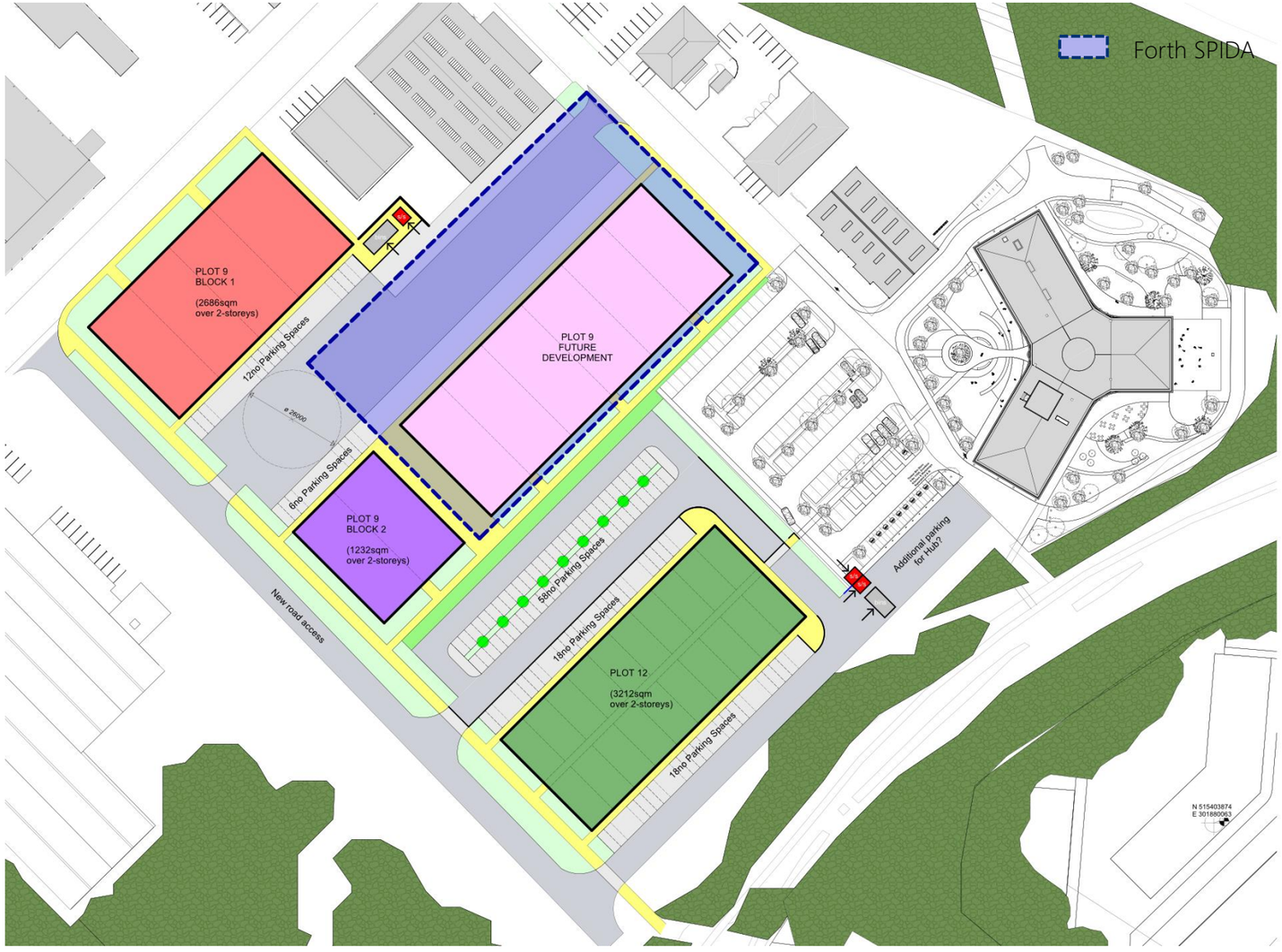
Option 1



Option 2



Option 3



STATUS A4 - AUTHORISED (MSC) - no Comments

Built Form

Site Arrangement

Site Wide Masterplan Proposals (Outline Application)

The landscape development for each plot should reflect the objectives of the landscape led masterplan principles to create a seamless landscape across plots and infrastructure.

Soft Landscape

Species choice should reflect the aim to enhance the biodiversity value of the site, be generally native and reflect the locally prevalent habitats. Avoid using large areas or avenues of single species plants to create robust landscape in respect of pest and diseases. The size of plants will depend on purpose, with more mature species used to highlight entrances and routes through the plots. Specific themes and planting mixes will be developed to create identities for character areas within the plots, such as at entrances, road and footpath links, parking zones and the central hub (Plots A1-A3) but within the general aims of the masterplan.

Hard Landscape

The hard landscape will be specific to the aims of the buildings, creating spaces for external use and events. Street furniture should be of a consistent type, materiality and design that helps to reinforce the character of the sites. Seating will be provided at points around the new footpaths to encourage the use of the spaces by both site users and the public and create accessible rest areas connecting the town centre with the residential areas to the west.

Design & Access / Design Code Figures

Built Form

Site Arrangement

Hard Landscape proposals

The intention is to improve the hard landscape on the primary routes, through new asphalt roads and associated concrete kerbs to create a more defined setting for the existing along the crossing routes and the areas associated with new buildings. New, accessible connecting routes including shared footpath / cycleways will be identified through alternative materials (concrete block / coloured concrete).

Soft Landscape Proposal

As part of the biodiversity strategy, the aim is to enhance the current mown grass with isolated trees, to encourage a wider variety of herbaceous and perennial species and planting informal groups of native trees and shrubs to break up the linearity of the spaces and provide visual interest throughout the year. Management will be reduced over time, allowing the plants to flourish and develop a self-sustaining mosaic / plant community.

Visual Screening to the new built form

As part of the biodiversity strategy, the aim is to enhance the current mown grass with isolated trees, to encourage a wider variety of herbaceous and perennial species and planting informal groups of native trees and shrubs to break up the linearity of the spaces and provide visual interest throughout the year. Management will be reduced over time, allowing the plants to flourish and develop a self-sustaining mosaic / plant community.

Creating Public Open Space

As part of the site wide proposals, extended footpaths and links will be created within the site to connect the town centre to the residential areas to the west. As part of these links there will be incidental public open space on route, which could include a multi-age fitness trail, educational nature trail and an art trail that reflects the identity and history of Cleator Moor.

Key Landscape Approach Issues

- Maximise the use and variety of existing green infrastructure
- Identify opportunities for Health & Fitness and Ecology trails
- Build on the proposed connections and new green streets to provide a high-quality environment between the built form
- Create additional links between the site and town centre

Illustrative view 1

Illustrative view 2

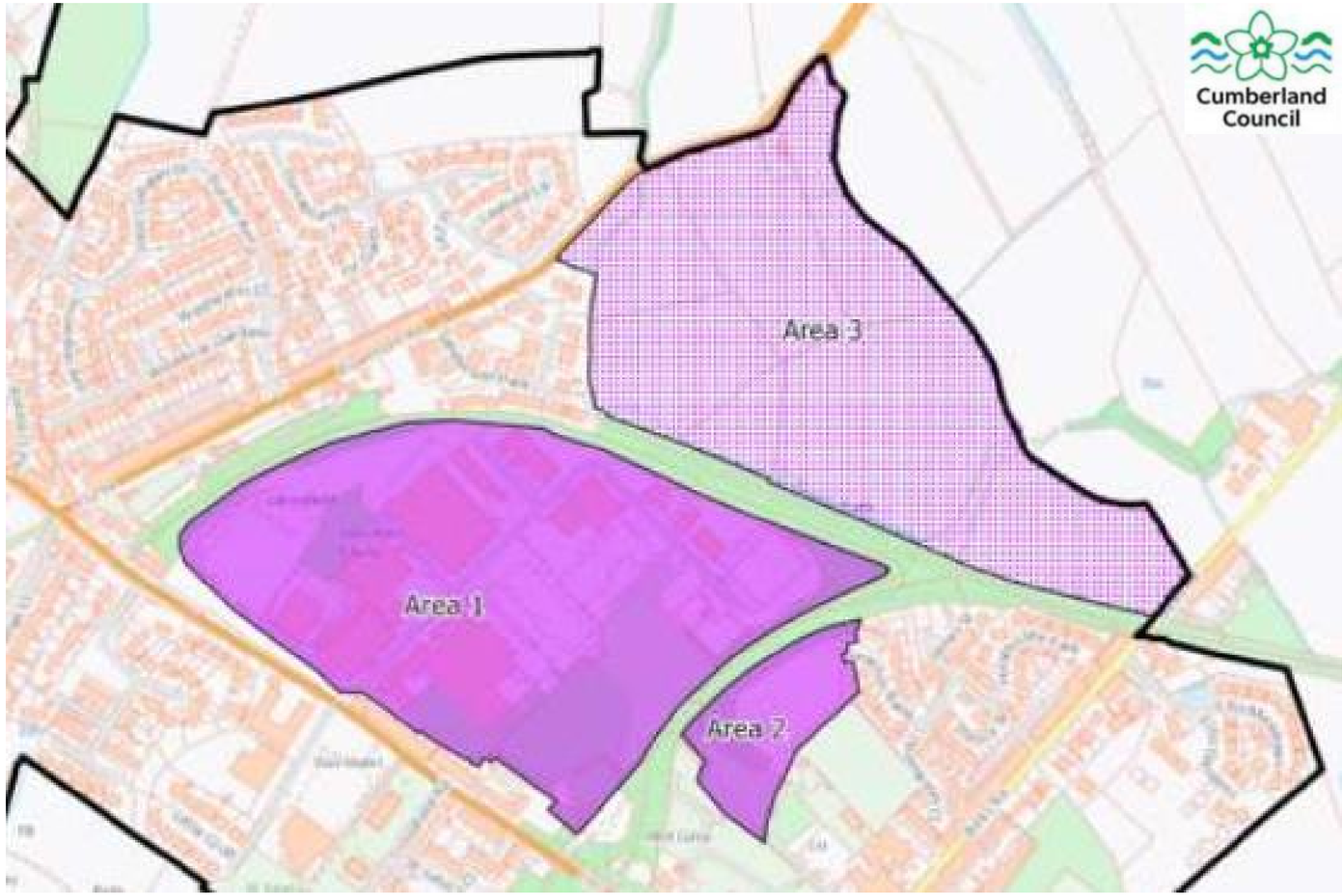
Built Form

Site Arrangement

Site Concept

The proposed development has a Landscape Led Approach, where the landscape baseline evidence gathered forms the rationale for the subsequent design response and should influence and inform a vision for the site.

The baseline gathering process has identified the key landscape and planning documents and initial ideas on overarching themes of connecting the town, connecting with the countryside, and bringing nature into the site.



Cleator Moor Innovation Quarter at Leconfield: Areas for Development – Copeland Local Plan 2021-2039

Built Form

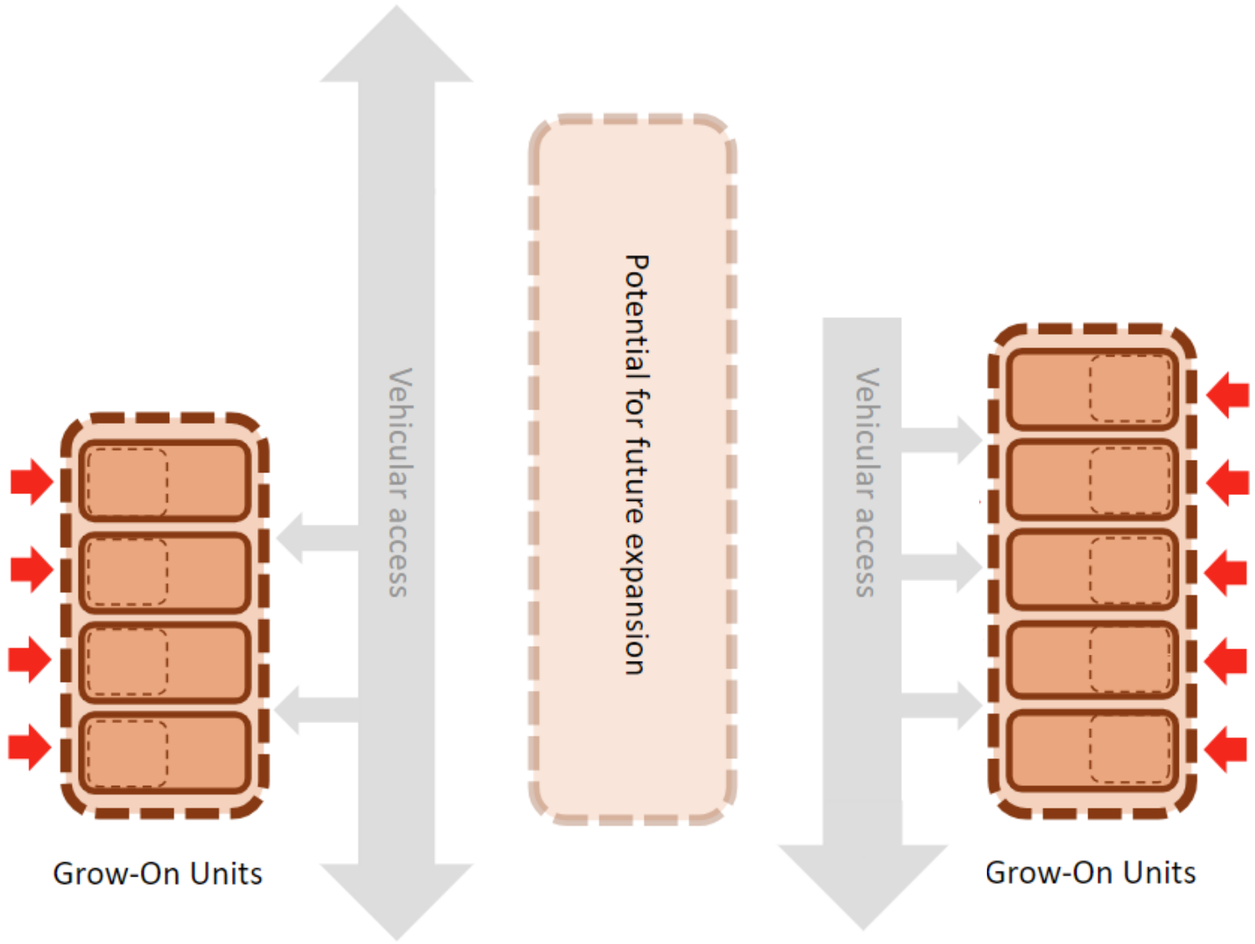
Concept Layout

The intent is for businesses to grow and move nearby within the estate into larger more self-contained accommodation. Plots 9 & 12 will be 'Grow On' units (orange). Both will cater for businesses either in their growth stages and are sized accordingly.

The 'Grow On' units are arranged in parallel and accessed off a common shared courtyard space. These units have been conceived as double fronted, with public facing elevations to the outside, and a functional elevation addressing the service yard. The intention is for each unit to have a dedicated overhead sectional door providing access to a double height workshop space. Mezzanine floors are to be provided at approximately 50% of the ground floor area to be fitted out as open plan or cellular office space as required to serve the needs of these more established businesses.

The two blocks are designed as clear span portal structures to allow for ease of extrusion for potential expansion or subdivision in a variety of configurations to suit market requirements.

Space between the two buildings will be kept clear for a potential additional grow-on unit.



STATUS A4 - AUTHORISED (MSC) - no Comments

Built Form

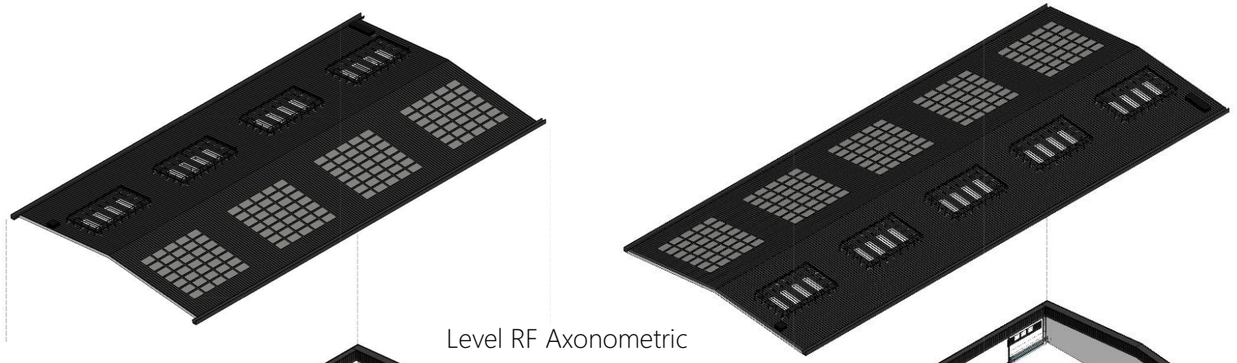
Proposed Building Forms

The building forms proposed are efficient rectangular shaped blocks with recessed gables to the north and south. In the absence of identified tenants, flexibility of space is key for marketability. Therefore, the two blocks are designed as clear span portal structures to allow for ease of extrusion for potential expansion or subdivision in a variety of configurations to suit market requirements. Dual pitch roofs have minimal 6-degree pitches.

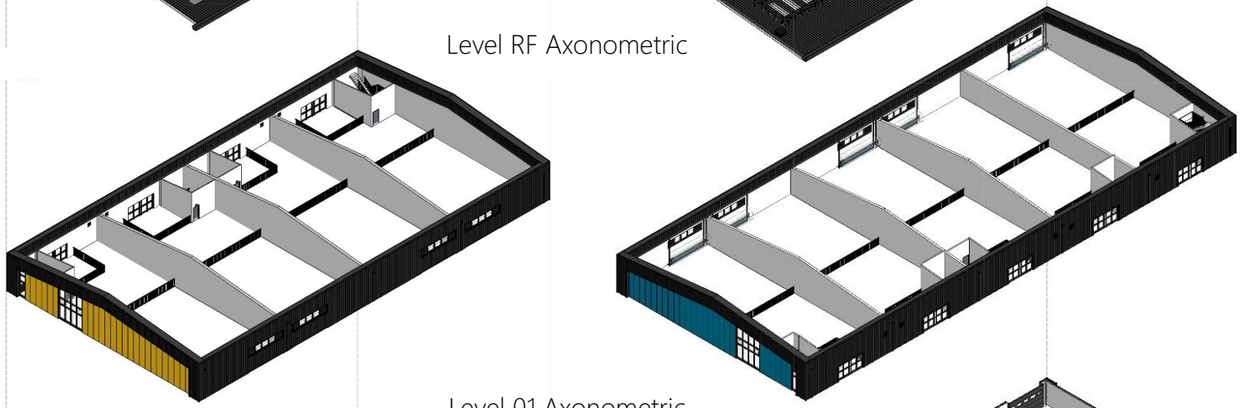
Units are double sided with both a public entrance and rear service entrance. There is a clear distinction between public / service with legible facades that provide clearly defined points of arrival for deliveries.

The two buildings utilise simple effective principles that include:

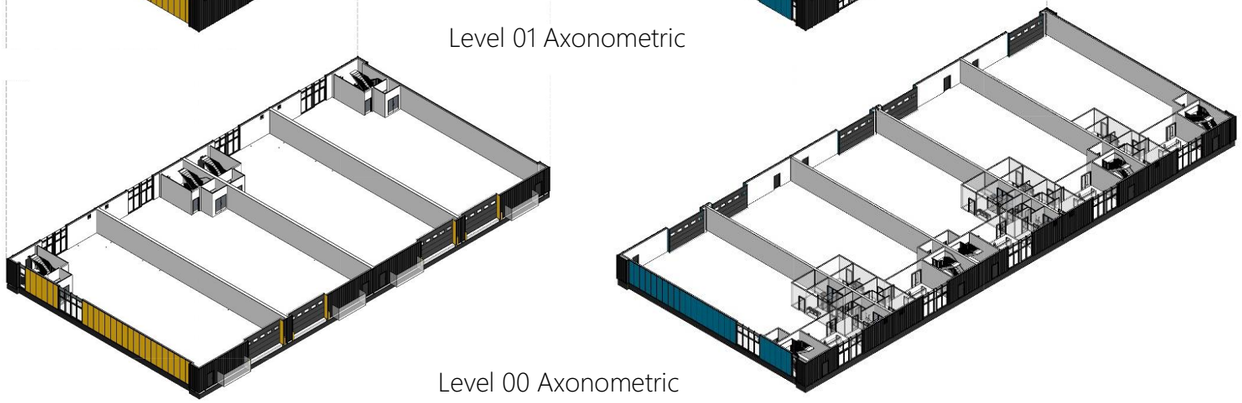
- A regular footprint that maximises the flexibility of space
- A communal ethos across the site but with individual building identities
- 'Live' frontages to the main access roads
- A clear distinction between public and private spaces but with permeable spaces between for safe congregation and use.
- Double height flexible workspace with single height support accommodation
- Cost efficiencies that offer good value
- Maximum opportunities for low carbon initiatives, including good daylighting, ventilation and accommodation of photovoltaic panels at roof level



Level RF Axonometric



Level 01 Axonometric



Level 00 Axonometric

STATUS A4 - AUTHORISED (MSC) - no Comments

Built Form

Proposed Building Amount

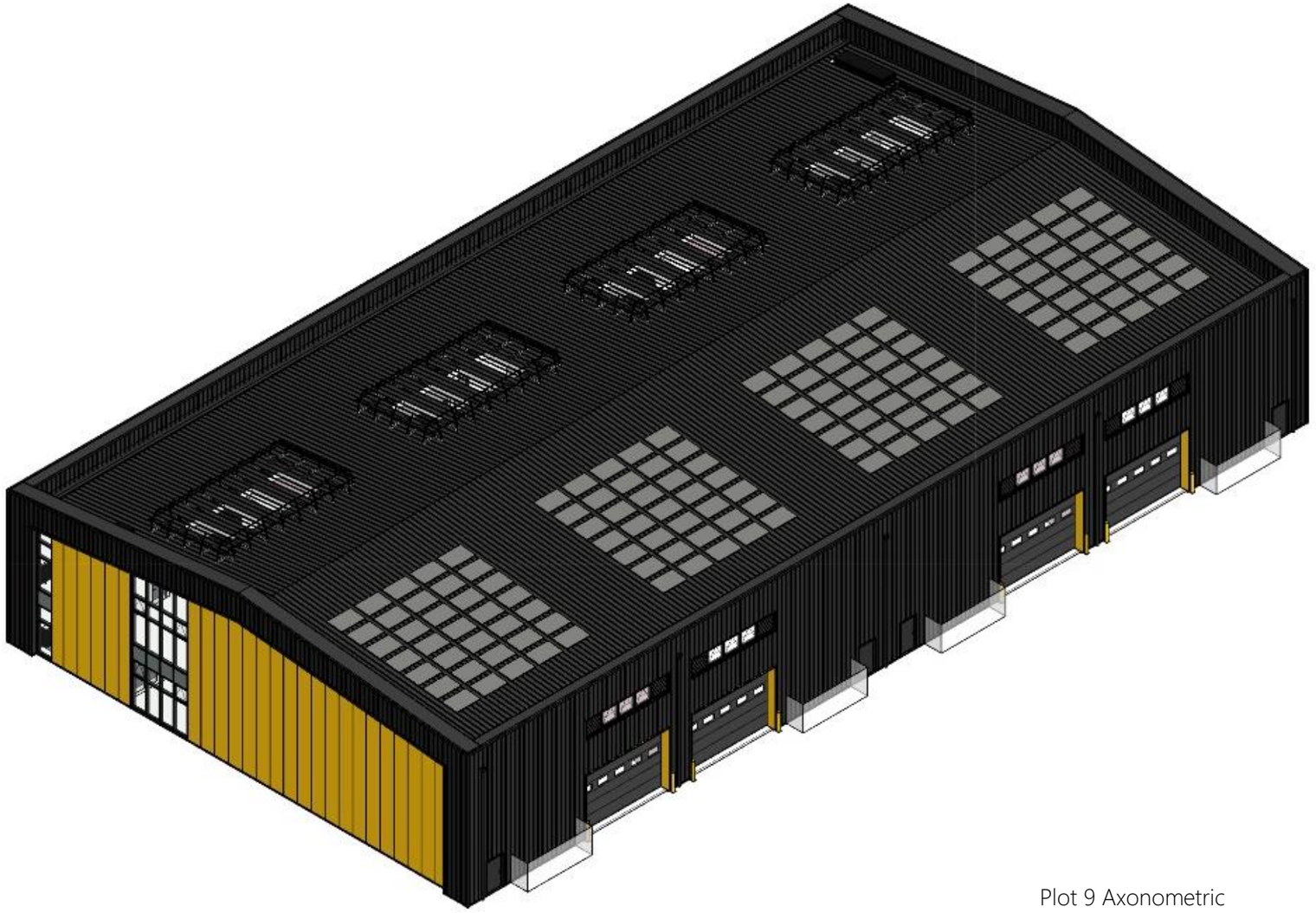
The proposed buildings have Gross Internal Floor Areas (GIFA) of the following:

- Unit 9 - 2631sqm
- Unit 12 – 3550sqm

These then break down further into the following individual unit GIFAs:

- Unit 9
  - 4no. 658sqmn ‘Grow On’ units
- Unit 12
  - 5no. 710sqm ‘Grow On’ units

Building units will be a ‘shell and core’ delivery, the interior is planned out to indicate how the building could function to determine staffing numbers. Using Approved Doc F (that stipulates one person per 10sqm of accommodation) we can assume a worst-case capacity of 59 staff (Plot 9) and 65 (Plot 12) per unit.



Plot 9 Axonometric

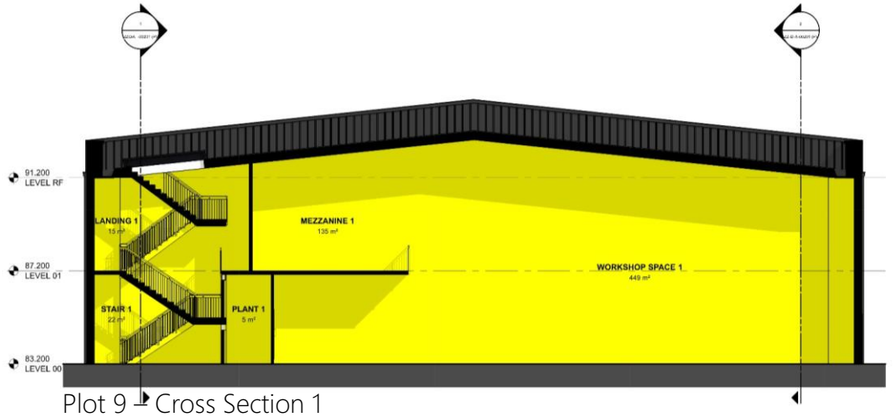
STATUS A4 - AUTHORISED (MSC) - no Comments

Built Form

Proposed Building Massing and Height

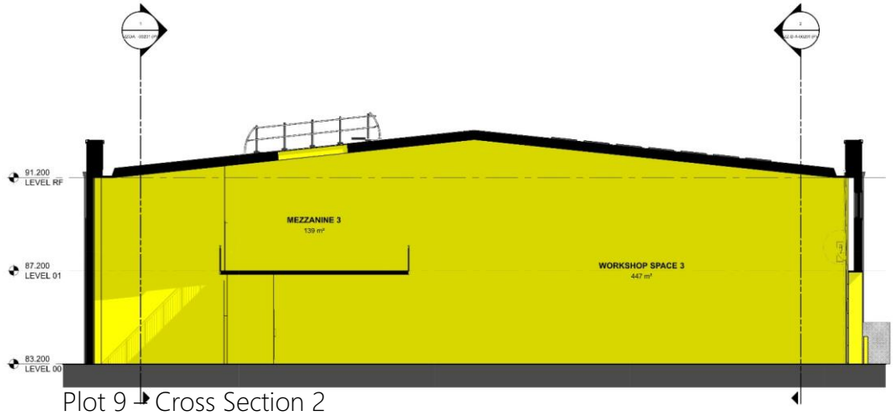
The proposed buildings for Plots 9 & 12 are 2 storey with vaulted ceilings which is in keeping with the general massing across the Leconfield Industrial Estate. Ground Floor to Mezzanine & Mezzanine to Eaves heights are both 4m appropriate for the proposed light industrial function of the buildings and the servicing / structural requirements. The buildings are approx. 9.6m to the ridge. Grids are at 7.5m centres and this enables both buildings to adopt the same structural design. Units are double structural bays. The overall width of the building is approx. 33m. Units have an approximate 2:1 ratio proportion length/width.

Plot 9 – Long Section 1



Plot 9 – Cross Section 1

Plot 9 – Long Section 2



Plot 9 – Cross Section 2

STATUS A4 - AUTHORISED (MSC) - no Comments

3
MOVEMENT

Movement

Proposed Access

Vehicular Access

The proposed development will provide vehicular access from the existing junction on Leconfield Road

Pedestrian and Cycle Access

The main access point to the units is from Leconfield Road with additional routes from the C2C route and the wider estate. The proposed development has been designed to minimise walking distances from the surrounding areas to the building entrances. The routes from the road also lead directly to the cycle storage area which are located close to the buildings to benefit from passive supervision.

Car Parking

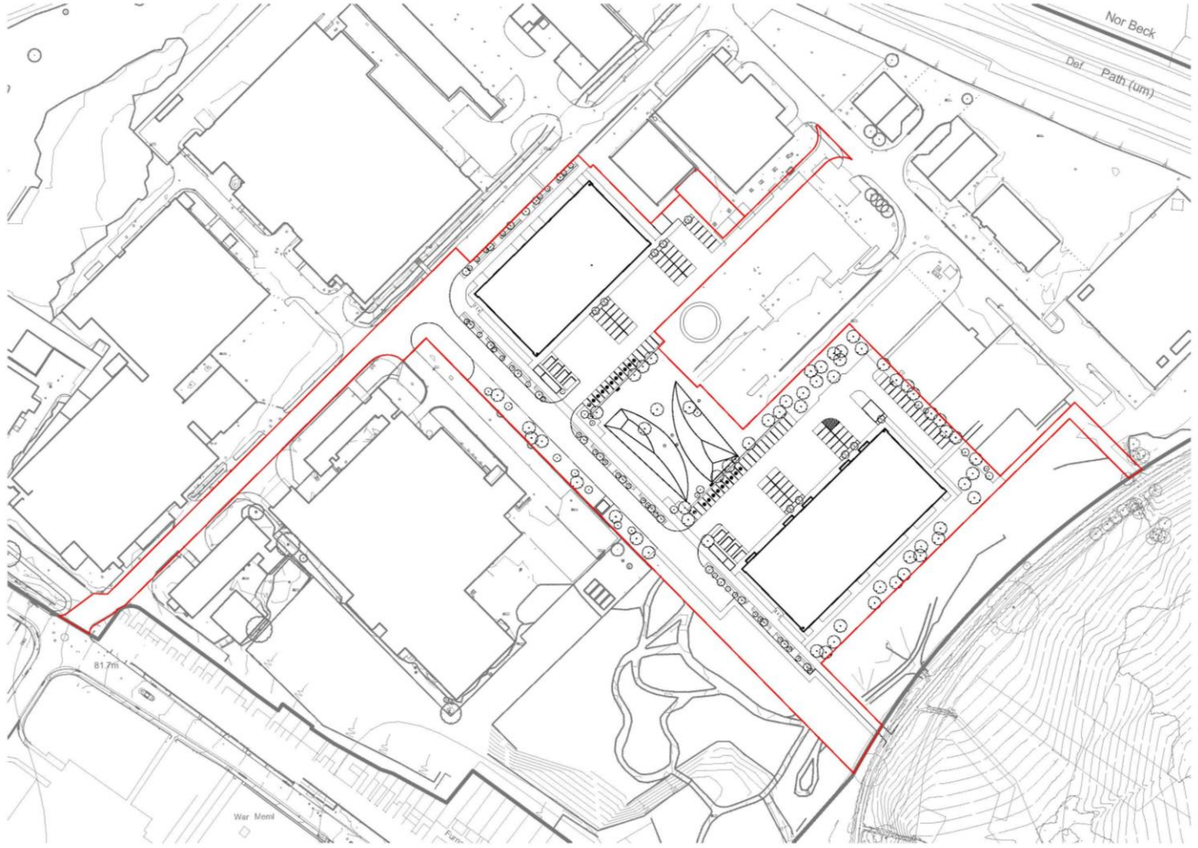
The parking bays are arranged in rows, perpendicular to the aisles and will have a minimum dimension of 4.8x2.4m wide. A minimum 6.0m aisle width between the parking bays for access and movement. Access zones of 1.2m width will be provided to the side of the accessible parking bays which are positioned as close as possible to the units providing direct access via level access points.

Cycle Parking

There are cycle parking shelters for permanent use (including lockable units) and visitor parking adjacent to the entrances.

Delivery and Servicing Arrangements

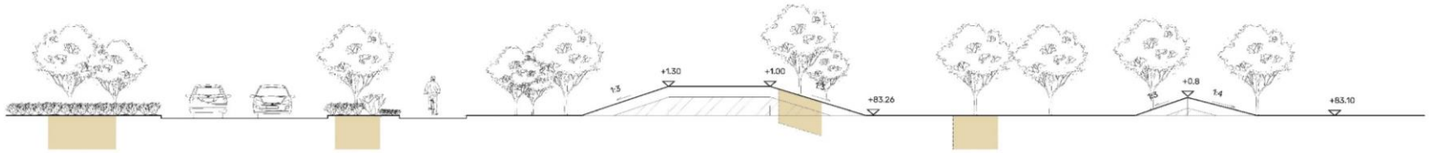
The proposed development has been designed to accommodate the delivery of goods direct to each unit. This includes refuse collection from the bin stores adjacent to each plot



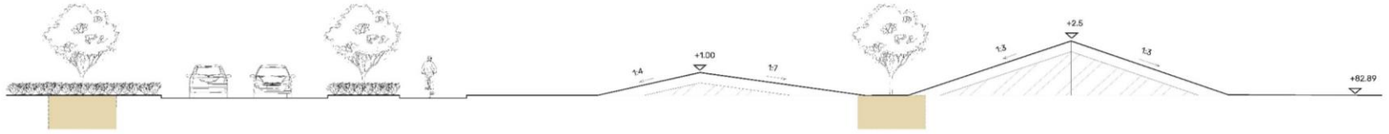
Movement

Proposed Access

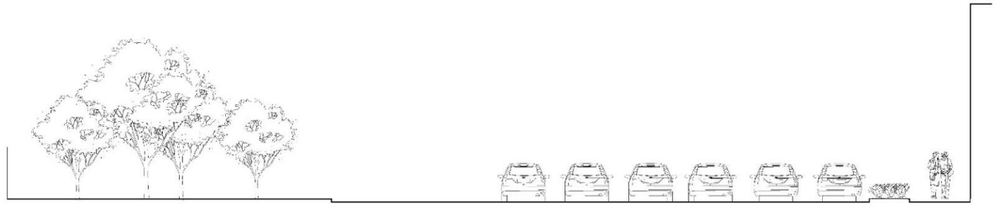
Typical Proposed Mound Sections



Section 01



Section 02



Section 03

Location Plan – Typical Section

Movement

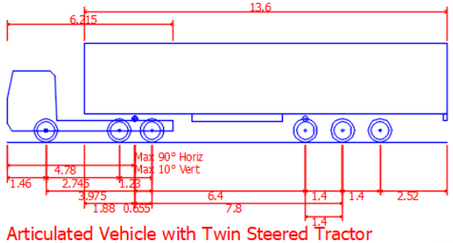
Proposed Access

Highways

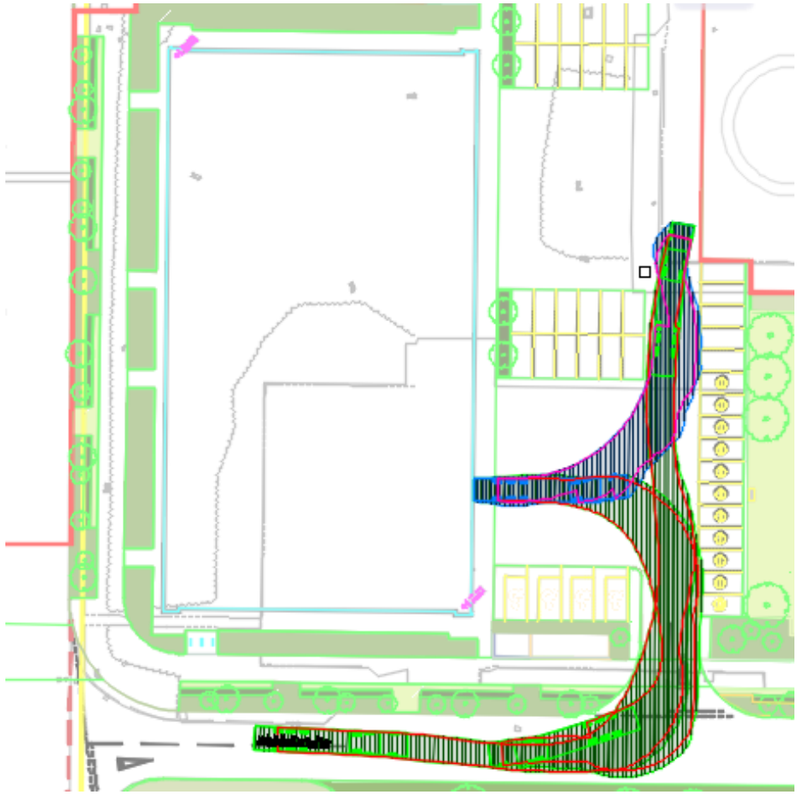
The proposed new units will be served by a new 7.3m wide access road, designed in line with Cumberland Council adoptable standards for an industrial road. A new/upgraded simple priority junction will be provided at the connection between the new road and existing road serving the estate. Current proposals include a shared footway/cycleway along the northeastern side of the new road, separated from the carriageway with a 3m wide grass verge.

Vehicle Tracking

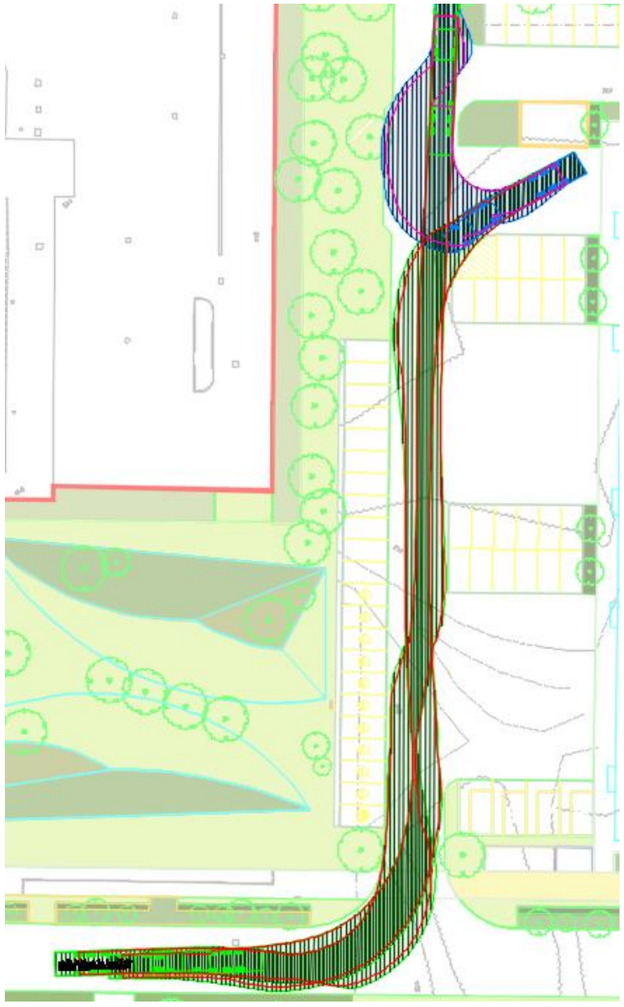
Vehicle tracking has been undertaken on the proposed routes to and from the new industrial units using a maximum road legal length (16.5m) articulated lorry. This tracking demonstrates all proposed units can be accessed by large HGVs. Vehicle tracking has also been undertaken for fire engines and refuse vehicles demonstrate that they are able to access the required areas of the site.



Articulated Vehicle with Twin Steered Tractor	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.691m
Min Body Ground Clearance	0.426m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.987m



Plot 9 – Vehicle Tracking



Plot 12 – Vehicle Tracking

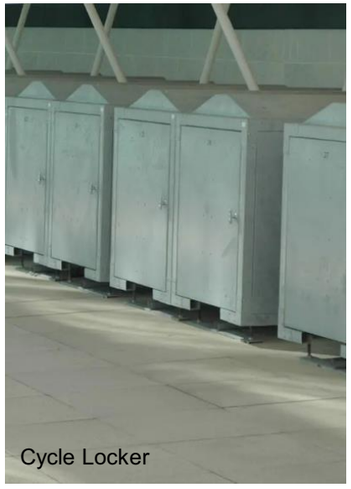
Movement

Proposed External Storage

- Street furniture will use materials chosen for both visual appearance and robustness. All elements to be similar or approved
- Cycle Shelter – Broxap Blox A
- Individual Cycle Lockers – Broxap Sheffield Horizontal Cycle Lockers with chargers for e-bikes
- Cycle Maintenance Stand
- Stainless Steel Harrogate Cycle Stands
- Bin Store – 2.2m high timber clad enclosure with matching gate
- Door Guard with Tapping Bar DDA Compliant Broxap BX14 6620

Cycle Shelter

Cycle Maintenance Stand



Cycle Locker

Harrogate Cycle Stands

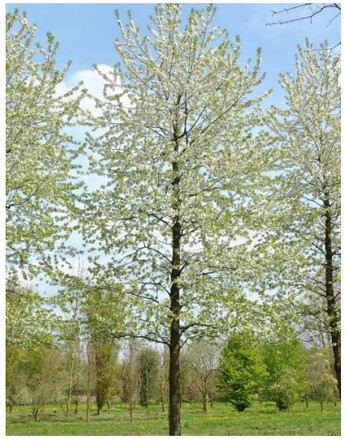
Bin Store

4
NATURE & PUBLIC SPACES

Nature & Public Spaces

Material Strategy– Soft Landscape








The planting strategy is key to realising the vision of the iSH Hub set within extensive green infrastructure and has been designed with a high percentage of native species, and a focus on biodiversity. The design has minimised impact on existing trees and woodland, with a significant number of proposed trees to mitigate the loss of existing trees.

Trees - Native species from the following proposed list, semi-mature specimens. Root balled or container grown subject to time of planting. Irrigation pipe and deadman anchor system for below ground staking.

- Silver Birch (Betula Pendula) Multi-stem
- English Oak (Quercus robur)
- Sweet cherry (Prunus avium)
- Alder (Alnus glutinosa)
- Hornbeam (Carpinus betulus)

Native Hedge - Plant as double staggered row at 7/m. Rabbit guards to all plants

Grass Areas

- Meadow mix seeding – Special General Purpose Meadow Mixture EM3 (Emorsgate) or similar approved
- Flowering Lawn Mix – Emorsgate EL1

STATUS A4 - AUTHORISED (MSC) - no Comments

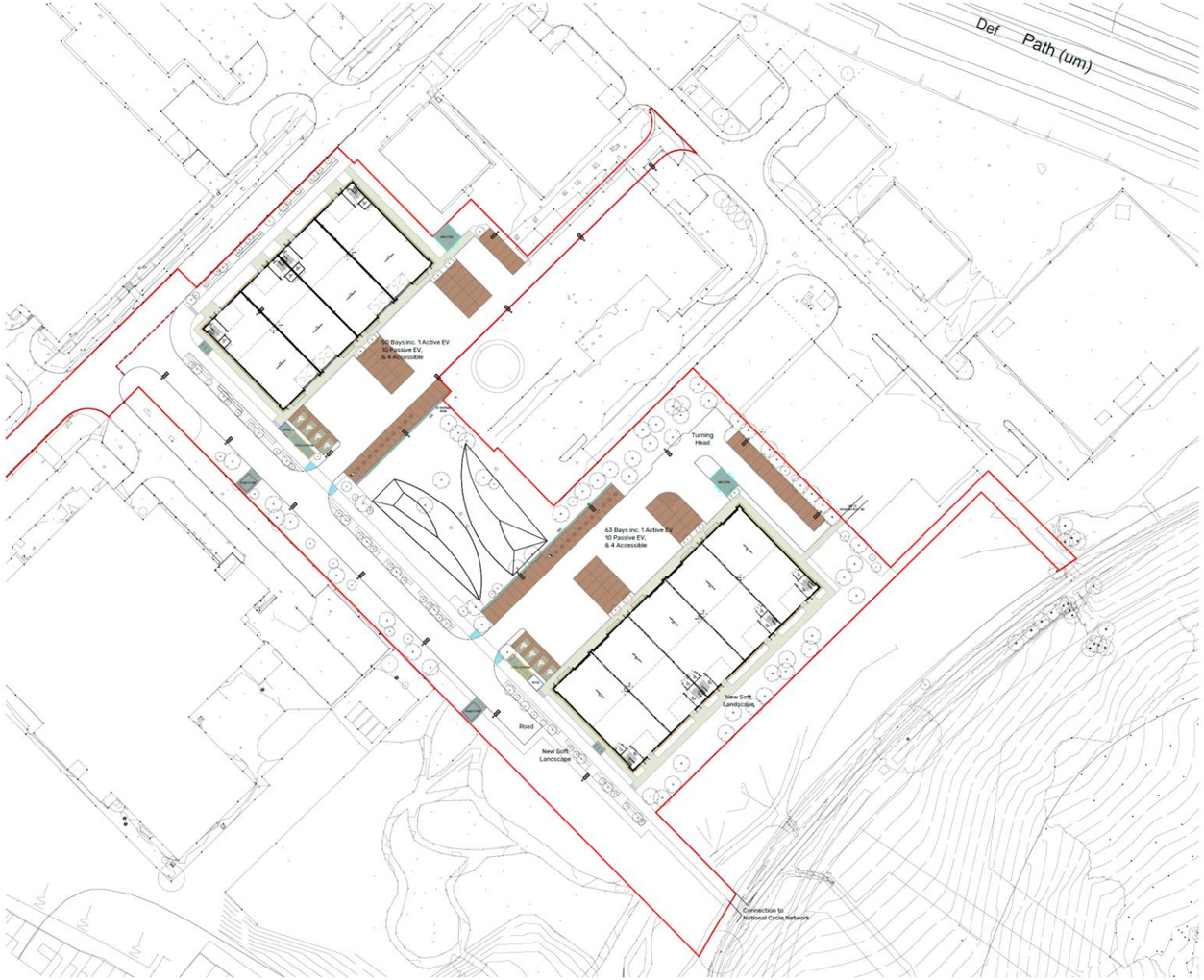
Nature & Public Spaces

Material Strategy– Soft Landscape

- Redline Boundary
- Ornamental Planting
- Hedgerow
- Wildflower Meadow/ Species Rich Grassland
- Native Woodland Mix
- Pollinators Mix
- Existing Vegetation to be retained

Nature & Public Spaces

Material Strategy – Hard Landscape



- Redline Boundary
- Building Edge Concrete Block Paving
  Tobermore 'Braemar' Ground
  Jura Grey 300x200x80mm or similar approved
- Gravel
- Concrete Hardstand
- Permeable Concrete Paving Type 1
  Tobermore 'Hydropave Pedesta'
  Bracken 200x100x80mm or similar approved
- Permeable Concrete Paving Type 2
  Tobermore 'Hydropave Pedesta'
  Natural 200x100x80mm or similar approved
- Tactile Blister Paving
  Tobermore Tactile Blister paving
  Natural 400x400x50 or similar approved
- Tactile Hazard Paving
  Tobermore Tactile Blister paving
  Natural 400x400x50 or similar approved
- Cycle Stands
  6no. Broxap 'Harrogate' Cycle Stand
  Stainless Steel *or similar approved*
- Door Guards
- EV Charger Kiosk
- Active EV Bays
- Passive EV Bays
- Street Lights
- Bin Store
- MCCB
- Substation
- Cycle Storage

Nature & Public Spaces

Landscape Masterplan

Nature & Public Spaces

Ecology

The ecology of the LUF2 site was assessed as part of the wider Leconfield site in 2021. A suite of surveys were undertaken in 2021 to understand and identify what habitats and species are present on the site and these surveys were updated in 2024 to ensure that the information available for the site was up to date. A range of habitats have been identified, including:

- Open Mosaic on Previously Developed Land OMoPDL (high ecological value including purple moor grass and rush pastures, bramble scrub, lowland calcareous grassland and ephemeral waterbodies);
- Other broadleaved woodland;
- Wet woodland (high ecological value);
- Modified grassland;
- Tall ruderal vegetation;
- Scattered scrub;
- Other standing water;
- Introduced shrub;
- Artificial unvegetated, unsealed surface; and
- Developed land; sealed surface (Hardstanding).

The OMoPDL and wet woodland have high ecological value. The other broadleaved woodland, other standing water and ruderal/ephemeral habitats are of local importance as they are likely to support a diverse range of fauna including invertebrates, small mammals and nesting birds but are common and widespread in the wider landscape.

Protected and Notable Fauna

Great crested newts *Triturus cristatus* are unlikely to be present and are not considered a constraint to the development. Other amphibians such as Common Toad *Bufo cristates*, Smooth Newt *Lissotriton Vulgaris*, Palmate Newt *Lissotriton Helveticus* and Common Frog *Rana Temporaria* are present within terrestrial habitat on site.

Tetra Tech reptile surveys conducted in 2021 indicated that breeding populations of common lizard *Zootoca vivipara* are present within the wider site and likely use the site for foraging and commuting. The update surveys in 2024 did not record any sightings of common lizard or any other reptiles, but common lizard were confirmed present on site in 2023 during Ecological Clerk of Works (ECoW) supervision. The proposed development is therefore likely to impact reptiles present on site. The impact on reptiles and common amphibians can be mitigated through the implementation of Reasonable Avoidance Measures (RAMS) during works. The RAMS will include restrictions on timing of site clearance to avoid the sensitive hibernation period and Ecological Clerk of Works (ECoW) supervision will be required during sensitive activities, such as dismantling of refugia and vegetation clearance.

The habitats onsite including OMoPDL, broadleaved woodland and wet woodland were considered suitable for foraging bats. The site was assessed as offering moderate foraging suitability largely due to the presence of the woodland habitat along the eastern boundary, which is of highest value to bats and which connects to the wider landscape. Mitigation will be required to reduce indirect impacts of artificial lighting on this woodland corridor.

Examples of Habitats and Species found on the LuF2 site

Open Mosaic on Prev. developed land

Common Spotted Orchid

Broad leaved woodland

Northern Marsh Orchid

Modified grassland

Dyer's green weed

Nature & Public Spaces

Ecology

Parts of the habitat and surrounding woodlands appear suitable for badgers. Badgers are a highly mobile species and can rapidly colonise new areas. Therefore, a pre-works badger check of the proposed development area will be undertaken at least three months prior to work.

An update breeding bird survey was completed in 2024. Thirty-one species of bird were recorded on site and the following species were confirmed nesting on site: herring gull, house sparrow, lesser black-backed gull, oystercatcher, song thrush, willow warbler, and wren. The loss of onsite habitats is not considered to significantly affect the availability of potential breeding opportunities available within the wider site. The bird nesting season within Cumbria runs from March to September. Therefore, if works are scheduled to commence within this period, nesting bird checks will be required immediately prior to works commencing (within 48 hours).

No dreys or red squirrel feeding signs were noted in 2021 or during the update surveys in 2024, however the woodlands are suitable for red squirrel and as a precautionary measure any suitable trees proposed for removal as part of the development are recommended to be checked for red squirrel dreys prior to removal.

The habitats present on site are likely to support a range of commonly occurring invertebrate species as well as LBAP and species of principal importance. Cinnabar moth *Tyria jacobaeae* and Dingy skipper *Erynnis tages* which are protected under the Section 41 of the NERC Act were recorded onsite. RAMS for these species will include a toolbox talk delivered by an ECoW including identification of the cinnabar moth and dingy skipper caterpillars and foodplants and a site walkover prior to clearance works. These plants and any caterpillars found will be translocated to a suitable receptor area determined by the ECoW.

Eight invasive non-native species as listed on Schedule 9 of the Wildlife and Countryside Act (1981) were recorded within the site boundary. This included Wall cotoneaster *Cotoneaster horizontalis*, Bearberry cotoneaster *Cotoneaster dammeri*, Bullate cotoneaster *Cotoneaster rehderi*, Himalayan cotoneaster *Cotoneaster simonsii*, Hollyberry *Cotoneaster bullatus*, Giant hogweed *Heracleum mantegazzianum*, Japanese knotweed *Reynoutria (Fallopia) japonica* and Rhododendron *Rhododendron pontincum*. Appropriate working practices to prevent further spread are in place. Invasive species present on site are being treated and/or removed from site, in advance of construction works.

Examples of Species and habitats found on the LuF2 site

Dingy Skipper

Caterpillars

Common Blue Butterfly

Cinnabar Moth

Species-rich grassland

Ephemeral ditches

Birds-foot trefoil

Wall cottoneaster

Badgers

Nature & Public Spaces

Ecology

Legend

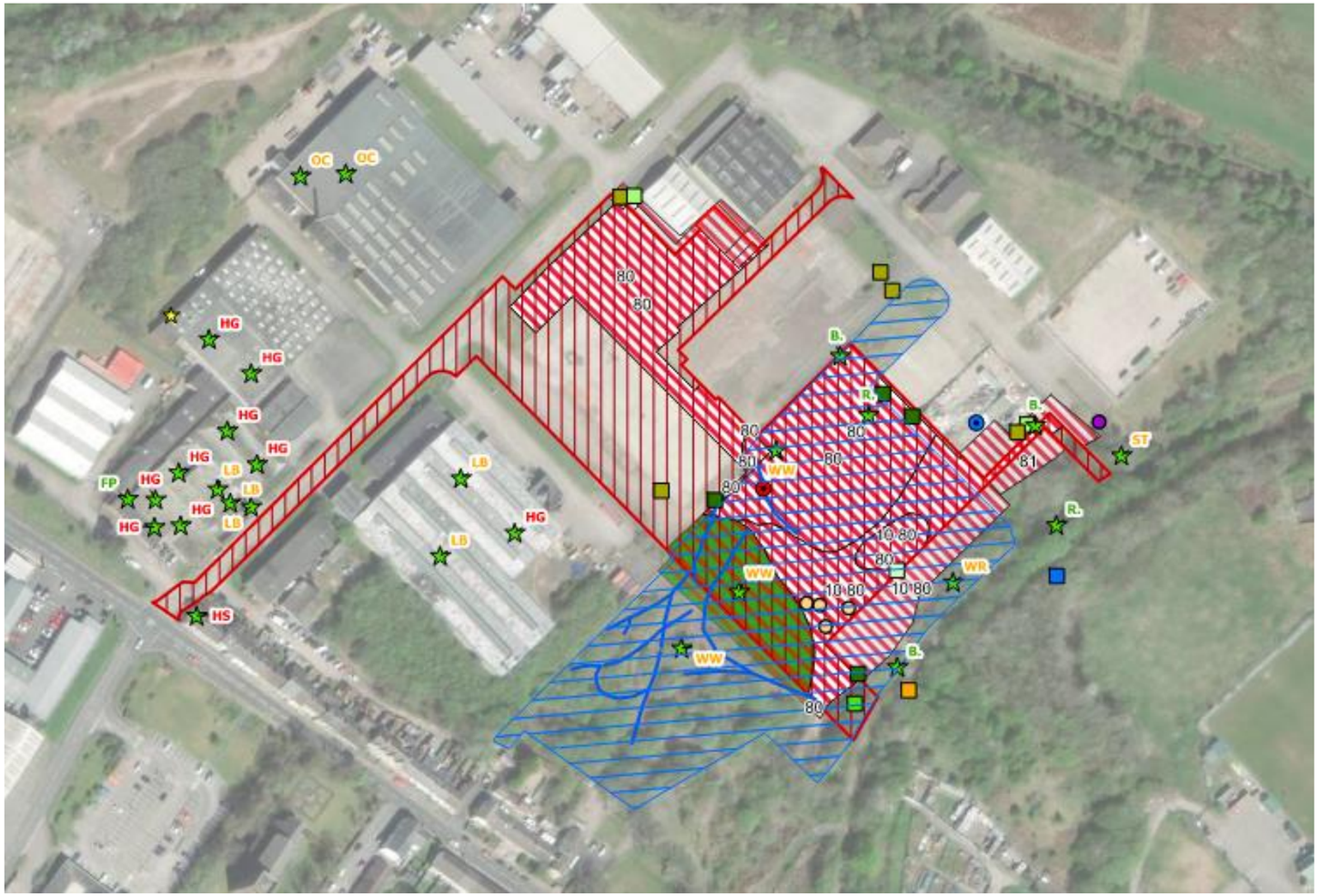
- Main works boundary
- Survey area*
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- Open Mosaic Habitat
- Waterbodies
- Common pipistrelle roost location
- Common frog
- Smooth newt and palmate newt location
- Cinnabar Moth sightings
- Dingy Skipper sightings

Invasive Species 2024 Records

- Bearberry cotoneaster *Cotoneaster dammeri*
- Bullate cotoneaster *Cotoneaster rehderi*
- Himalayan cotoneaster *Cotoneaster simonsii*
- Hollyberry cotoneaster *Cotoneaster bullatus*
- Wall cotoneaster *Cotoneaster horizontalis*
- Giant hogweed *Heracleum mantegazzianum*
- Japanese knotweed *Reynoutria japonica*
- Common pipistrelle roost location

Breeding Status

- Confirmed breeding bird
- B. - Blackbird
- FP - Feral pigeon
- HG - Herring gull
- HS - House sparrow
- LB - Lesser black-backed gull
- OC - Oystercatcher
- R. - Robin
- ST - Song thrush
- WR - Wren
- WW - Willow warbler



Ecological Features and Constraints

* u1f category is the Open Mosaic on Previously Developed Land (OMoPDL) habitat

Nature & Public Spaces

Ecology

Legend

- Main works boundary

2024 Records

- Bearberry cotoneaster *Cotoneaster dammeri*
- Bullate cotoneaster *Cotoneaster rehderi*
- Himalayan cotoneaster *Cotoneaster simonsii*
- Hollyberry cotoneaster *Cotoneaster bullatus*
- Wall cotoneaster *Cotoneaster horizontalis*
- Giant hogweed *Heracleum mantegazzianum*
- Japanese knotweed *Reynoutria japonica*
- Rhododendron *Rhododendron ponticum*

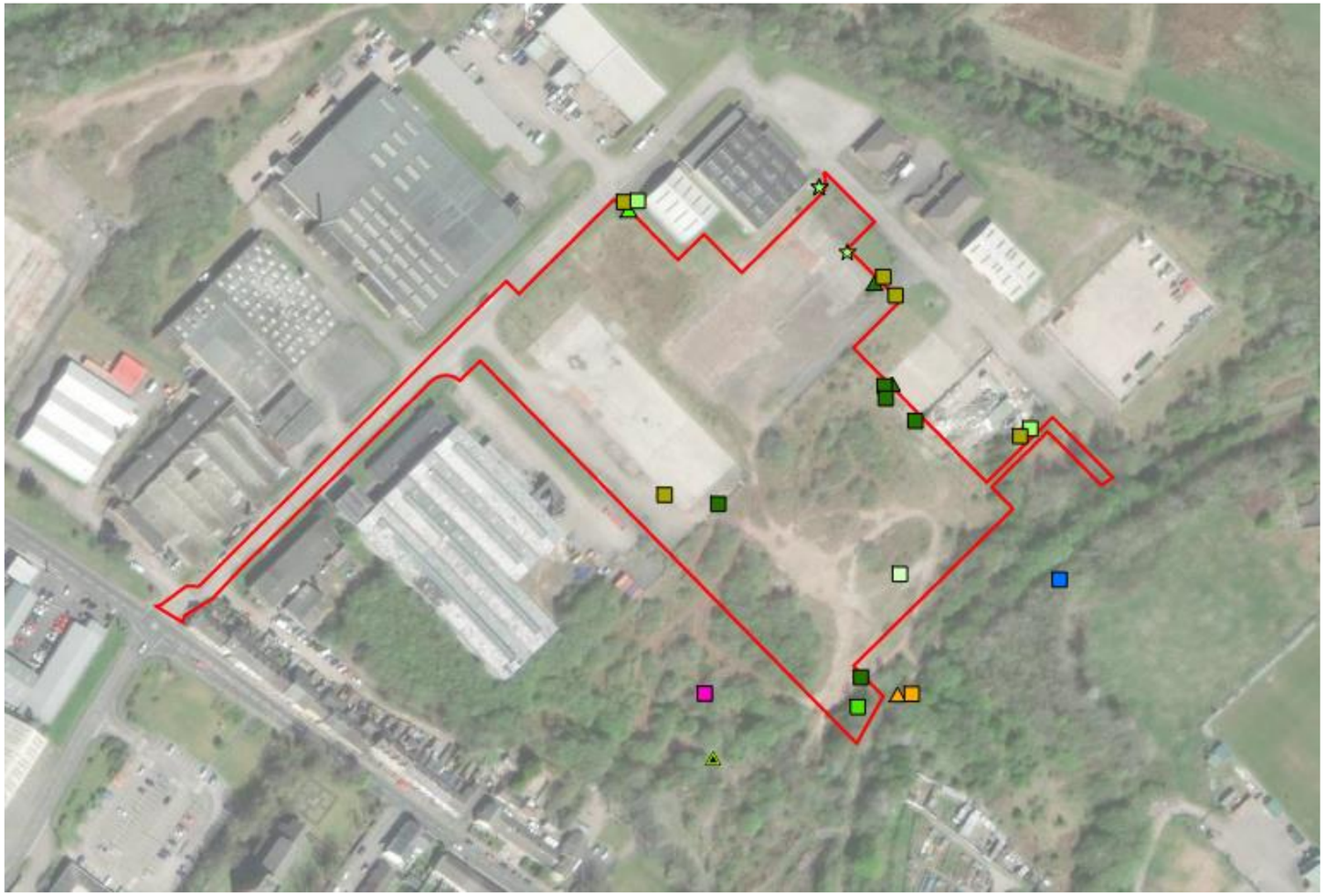
2021 Records

Phase 1

- Cotoneaster

INNS Survey Records

- Cotoneaster
- Hollyberry cotoneaster *Cotoneaster bullatus*
- Wall cotoneaster *Cotoneaster horizontalis*
- Japanese knotweed *Reynoutria japonica*



Invasive Species Plan

Nature & Public Spaces

Biodiversity Net Gain

Legend

- Wider site boundary
- Biodiversity Net Gain (BNG) offsetting sites
- Construction boundary

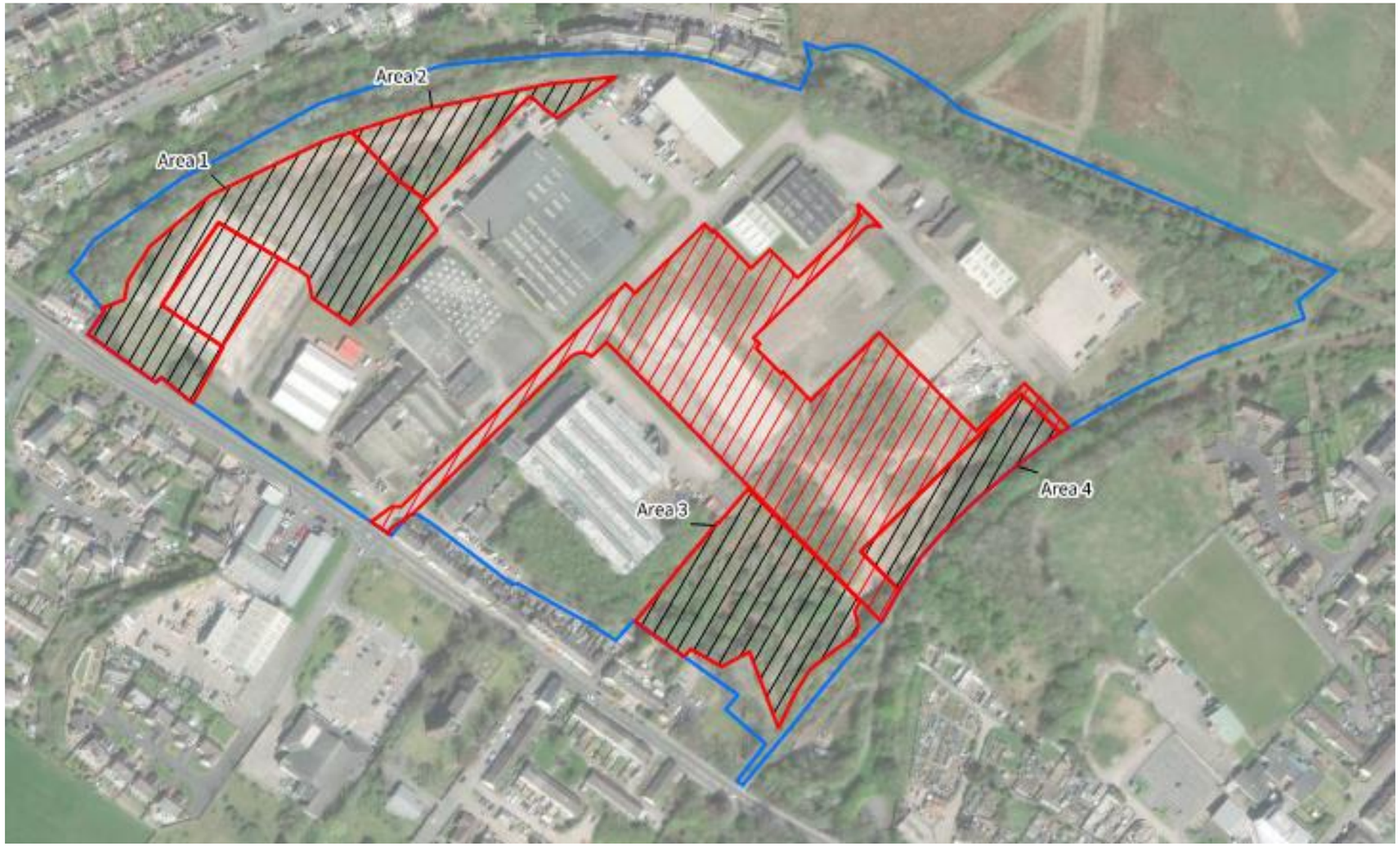
A Biodiversity Net Gain Assessment was completed of the Construction boundary, using the Defra Statutory Biodiversity Metric.

The aim of this BNG assessment was to:

- Quantify the pre-development baseline habitat and hedgerow biodiversity units present on site and within the offsetting areas;
- Quantify the post-development and post-intervention habitat and hedgerow biodiversity units present on site and within the offsetting areas;
- Identify any irreplaceable habitats that require bespoke mitigation to be agreed with Natural England; and
- Calculate the likely change in biodiversity units for habitat and hedgerow units from pre- to post-development to provide an indication of the biodiversity losses / gains that may occur should the proposed development proceed.

The OMHoPDL and wet woodland have high ecological value. There are no irreplaceable habitats present on site.

Four areas suitable for biodiversity offsetting were identified within the wider site boundary (black overlay).



Biodiversity Net Gain boundaries

Nature & Public Spaces

Biodiversity Net Gain – Construction Boundary

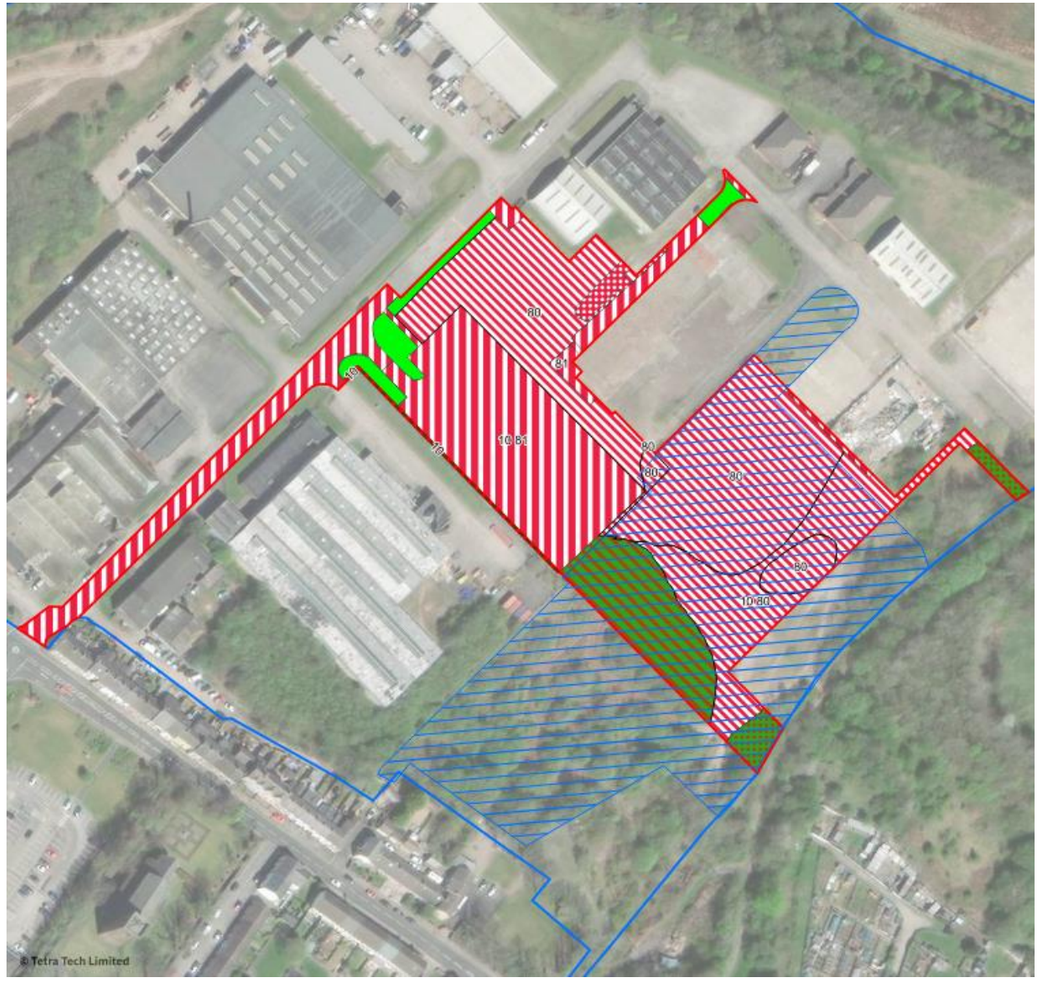
Legend

- Construction boundary
- Ownership boundary
- Priority Habitat Inventory as Open Mosaic Habitats on previously developed land
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- u1e - Built linear feature

Secondary Code:
10 - Scattered scrub
50 - Ditch
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral
510 - Bare ground
847 - Introduced shrub

Significant enhancements for biodiversity net gain, included within the site design include:

- Creation of semi-natural habitat and habitats of medium or higher distinctiveness within the Main site landscaping (including areas of open mosaic habitat, urban trees and broadleaved woodland).
- Enhancements to habitat condition, for example from poor or moderate to good (improving habitats on site), for retained habitats.
- Enhancement of existing habitats within Areas 1, 2 and 4 to create OMHoPDL will generate high distinctiveness habitat units which can be used to offset the loss of these habitats within the Main site.
- Inclusion of materials present onsite, such as re-use of soils, substrates, harvested seed and green hay.



Biodiversity Net Gain – Construction boundary: Pre-development habitats

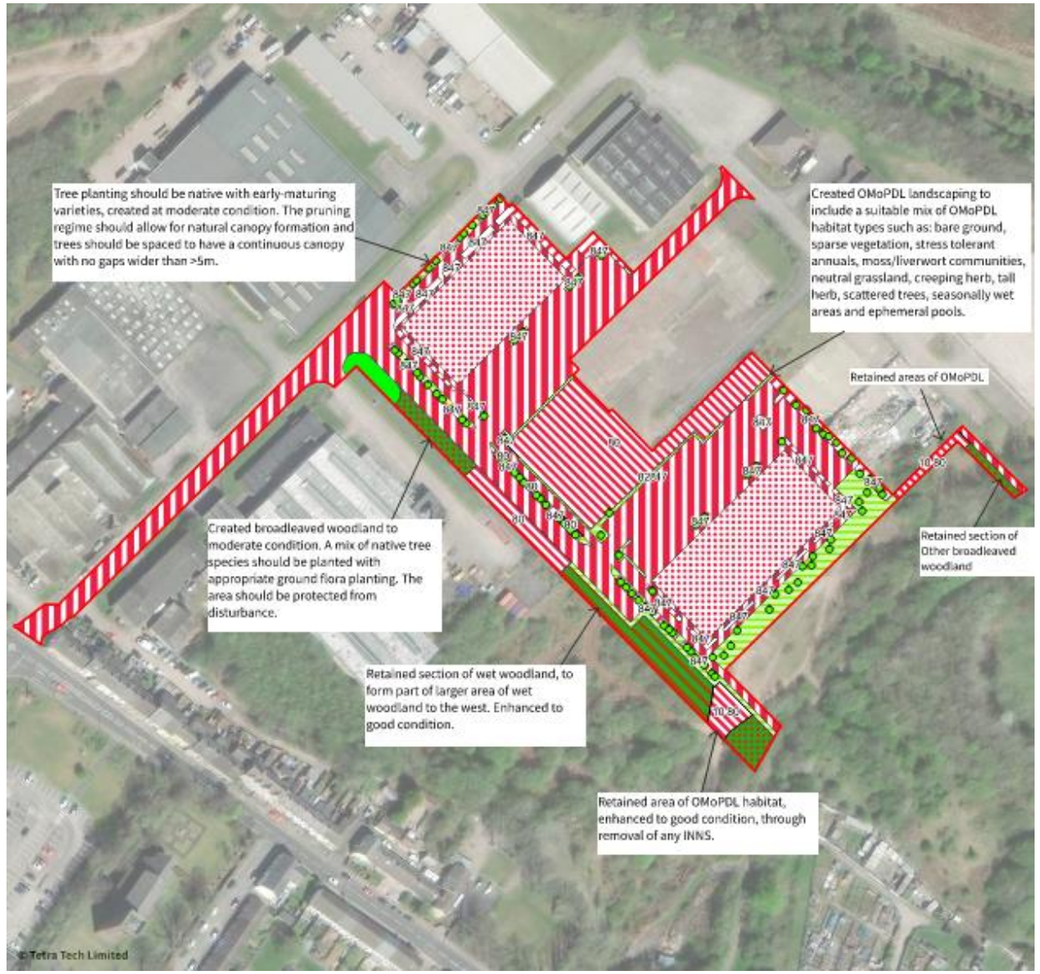
Nature & Public Spaces

Biodiversity Net Gain – Construction Boundary

Legend

- Construction boundary
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1 - Built-up areas and gardens
- u1b - Developed land, sealed surface
- u1b5 - Buildings
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- h2a5 - Species-rich native hedgerow
- Urban tree

Secondary Code:
10 - Scattered scrub
90 - Ditch
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral
810 - Bare ground
828 - Vegetated gardens
847 - Introduced shrub



Biodiversity Net Gain – Construction boundary – Post-development habitats

Nature & Public Spaces

Biodiversity Net Gain – Enhancement

Legend

- Construction boundary
- Ownership boundary
- BNG offsetting areas
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- u1b - Developed land, sealed surface
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- Urban trees (6)

Secondary Codes:
10 - Scattered scrub
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral

Symbology defined by UK Habs. https://ukhab.org/ukhab-documentation/

Within Area 1 and 2, all the existing habitats; with the exception of the woodland and individual trees, will be enhanced to OMHoPDL habitat. This includes the other neutral grassland, bramble scrub, ruderal / ephemeral and developed land; sealed surface. The existing wet woodland will be enhanced from moderate to good condition.

The existing wet woodland within Area 3 will be enhanced to good condition. Any retained OMHoPDL in Area 4 will be enhanced to good condition.

Biodiversity Net Gain – Off-setting areas Pre-intervention habitats

Nature & Public Spaces

Biodiversity Net Gain – Enhancement

Legend

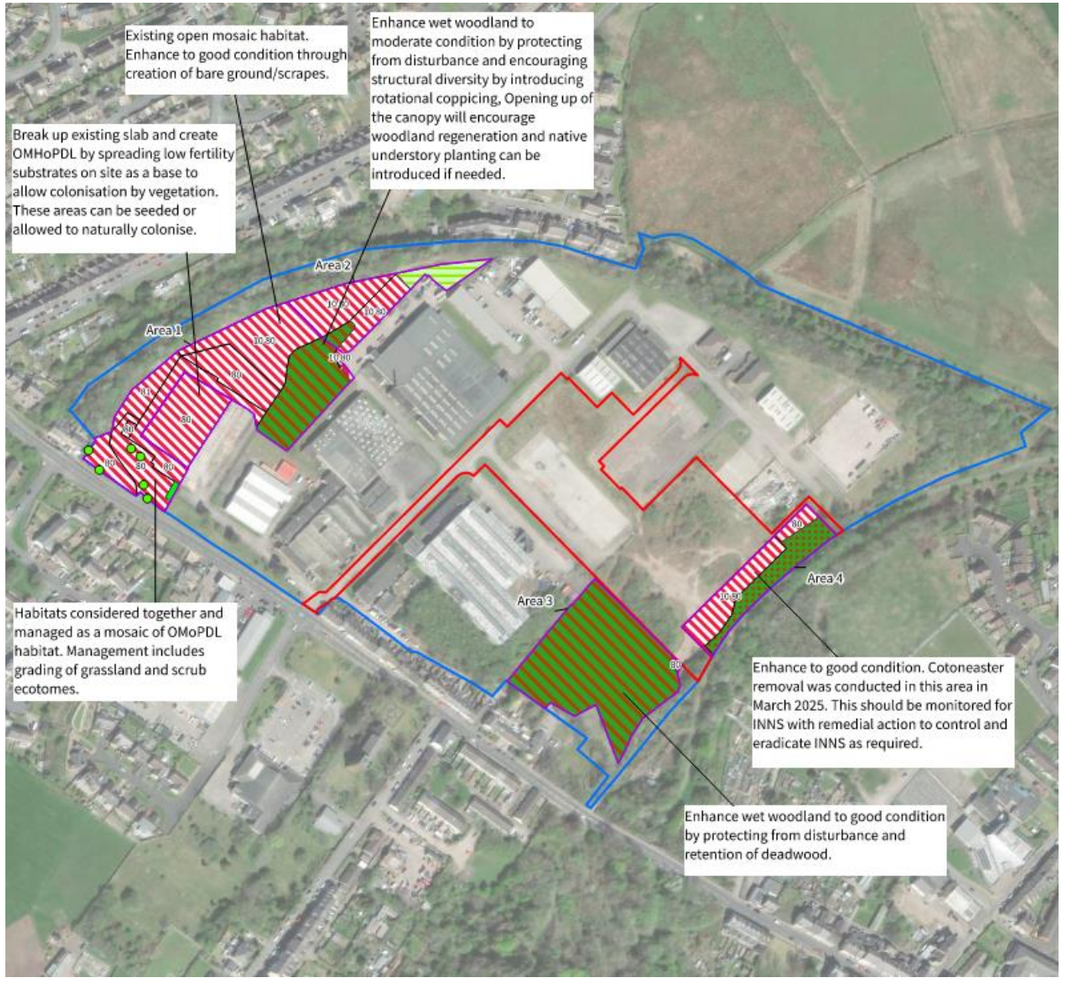
- Construction boundary
- Ownership boundary
- BNG offsetting areas
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- Urban trees

Secondary Codes:
10 - Scattered scrub
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral

Symbology defined by UK Habs. https://ukhab.org/ukhab-documentation/

BNG Headline results for the construction boundary and offsetting areas

Project Stage	Habitat Type	Units
On-site baseline Construction boundary and BNG offsetting areas	Habitat units	20.20
	Hedgerow units	0.00
On site post-intervention	Habitat units	7.11
	Hedgerow units	4.07
On site Total net unit change	Habitat units	-13.09
	Hedgerow units	4.07
Off-site baseline (BNG offsetting areas)	Habitat units	22.56
	Hedgerow units	0.00
Off-site post-intervention	Habitat units	37.72
	Hedgerow units	0.00
Off-site Total net unit change	Habitat units	15.16
	Hedgerow units	0.00
Total percentage change	Habitat units	10.25%
	Hedgerow units	N/A
Trading rules met?		YES



Biodiversity Net Gain – Off-setting areas Post-intervention habitats

5
USES

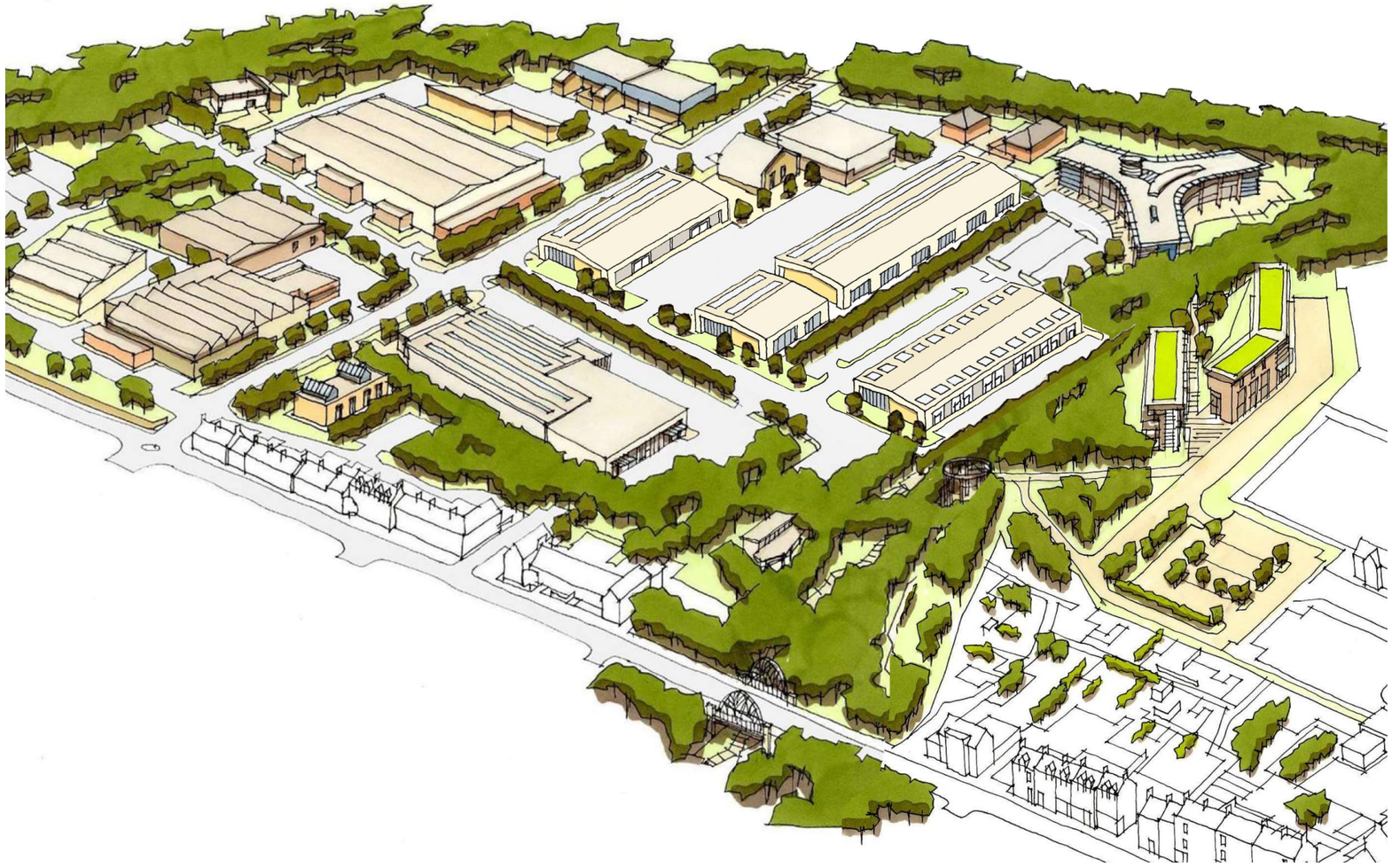
Uses

Proposed Use

Proposed Use Class for all the units is B2 General Industrial. Tenants will be new and emerging businesses and build upon the existing supply chain, knowledge and engineering capabilities in the new nuclear and clean energy sectors in West Cumbria.

The provision of modern and flexible workspaces that can cater for all needs will enable these businesses to focus on a core of solutions driven engineering collaboration, innovation and diversification.

The proposal will enable Cleator Moor to play a major part in the UK's drive to continue to be an engineering and creative world leader, which will benefit the town and wider region long term. The proposed development is a once in a lifetime improvement that will have a sustainable benefit and a far-reaching impact for many generations to come, bringing in new prosperity to the town.



STATUS A4 - AUTHORISED (MSC) - no Comments

6
BUILDINGS

Buildings

Accessibility

The ‘Grow On’ units are equal in overall size with some differentiation in mezzanine size between the plots and follow a simple premise. Entrance glazing is provided to the outer fringe creating a public face for the plot. Glazing spans both ground and mezzanine level. A cut out of the mezzanine floor provides a double height entrance that is inviting, generous and alludes to the volume of the internal space. Any cellular accommodation (incl. WC and kitchen) will be contained within the ‘front’ of the units due to its storey breakdown. The double storey ‘rear’ of the units is unsuitable for compartmentation and is envisaged as the workshop area to the units. We have therefore provided a sectional overhead door and separate rear entrance door to the service yard behind for ease of servicing and delivery. Additional clerestory glazing is provided above the doors for the natural lighting of the workshop. Rooflights are situated above the mezzanine to bring natural light into the centre of the plan.

Stair provision is located on the main frontage to ensure appropriate fire egress of the mezzanine floor and immediate evacuation. This location also enables the potential extension of the mezzanine level within acceptable fire engineering parameters. End units provide access and escape to the roof level via extended stair and caged ladder.

Those elements of the building that require regular cleaning and/or maintenance have been considered carefully by the team to ensure they can be accessed and carried out safely within the framework of the CDM Regulations. These include:

- Cleaning of external glazing
- Inspection and maintenance of the façade, roofs and gutters
- Cleaning and maintenance of internal glazing, ceilings and lights

Unit 9 Ground Floor

Unit 9 First Floor

STATUS A4 - AUTHORISED (MSC) - no Comments

Buildings

Appearance

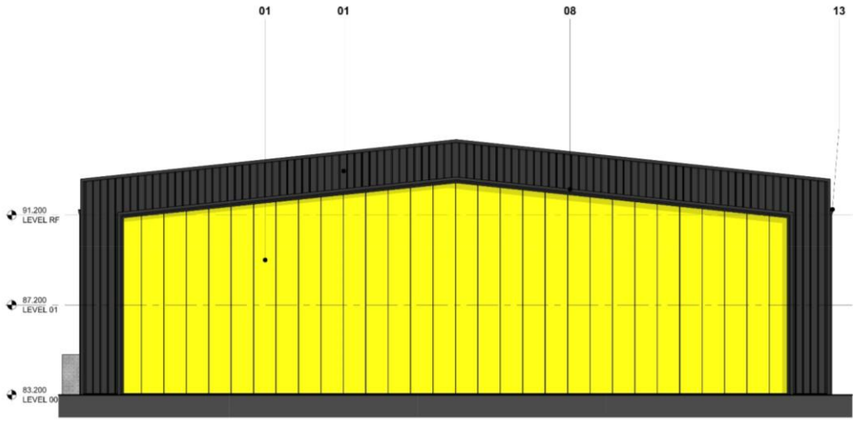
A simple material palette was chosen with the use of high-quality industrial materials with strong but simple aesthetics. A muted black cladding external envelope forms the basis of the proposal and will align with that of the adjacent Hub building. A vibrant accent colour cladding to gables and parts of the service elevations give the unit individuality and assist wayfinding on the estate. Curtainwall elements indicate public front entrances and principal gables along the southern access road to provide a live frontage. Roofs are populated with rooflights and PV panel array.

The buildings shall be designed to achieve the current Buildings Regulations Part L requirements. The development aim should be to achieve an EPC (Energy Performance Certificate) 'A' rating. The design should emphasize cross ventilation and allow for natural ventilation through operable windows. This will be enhanced by ensuring windows and doors maintain airtightness when closed.

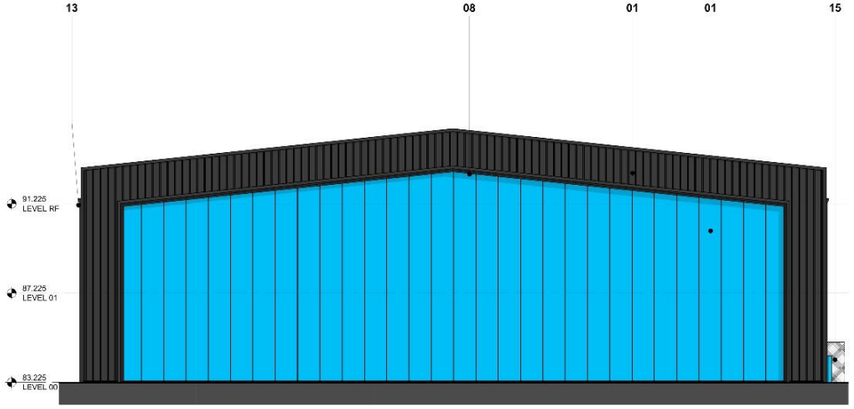
PROPOSED MATERIALS

01. PPC ALUMINIUM COMPOSITE CLADDING (TRAP / MICR)
COLOUR: BLACK / FEATURE (TBC)
02. PPC OVERHEAD SECTIONAL DOOR
COLOUR: BLACK (TBC)
03. PPC ALUMINIUM DOOR (GLAZED, SOLID, LOUVRE)
COLOUR: BLACK (TBC)
04. PPC ALUMINIUM CURTAIN WALL
COLOUR: BLACK (TBC)
05. PPC ALUMINIUM WINDOW
COLOUR: BLACK (TBC)
06. PPC ALUMINIUM LOUVRE
COLOUR: BLACK (TBC)
07. INSULATED GLAZED SPANDREL PANEL
COLOUR: GREY (TBC)
08. PPC ALUMINIUM FLASHING
COLOUR: BLACK / FEATURE (TBC)
09. PPC ROOF HATCH
COLOUR: BLACK (TBC)
10. PPC ALUMINIUM ROOFLIGHTS
COLOUR: BLACK (TBC)
11. PHOTOVOLTAIC PANELS (ARRANGEMENT INDICATIVE)
COLOUR: N/A
12. BALLASTED HANDRAIL
COLOUR: GALVANISED STEEL (TBC)
13. RAINWATER GOODS
COLOUR: BLACK (TBC)
14. FEATURE SIGNAGE (INDICATIVE - TBC)
COLOUR: STAINLESS STEEL (TBC)
15. AIR PUMP UNIT CAGE
COLOUR: GALVANISED STEEL (TBC)
16. SAFETY BOLLARD
COLOUR: TBC

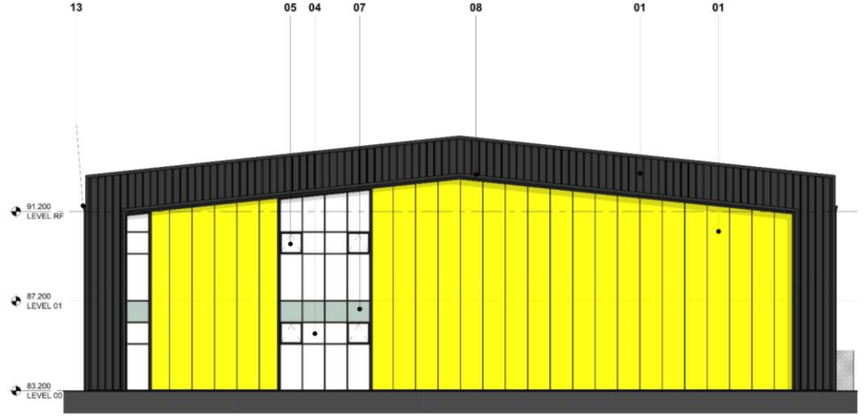
NOTE: BAT BOX NUMBERS AND LOCATIONS TBC



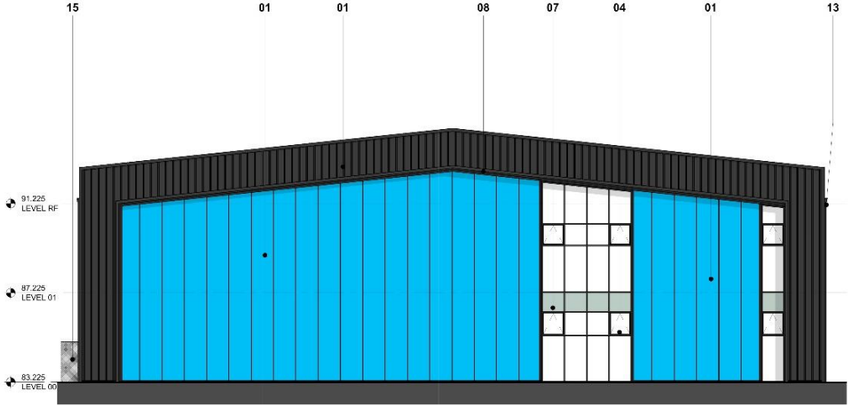
Plot 9 North Elevation



Plot 12 North Elevation



Plot 9 South Elevation

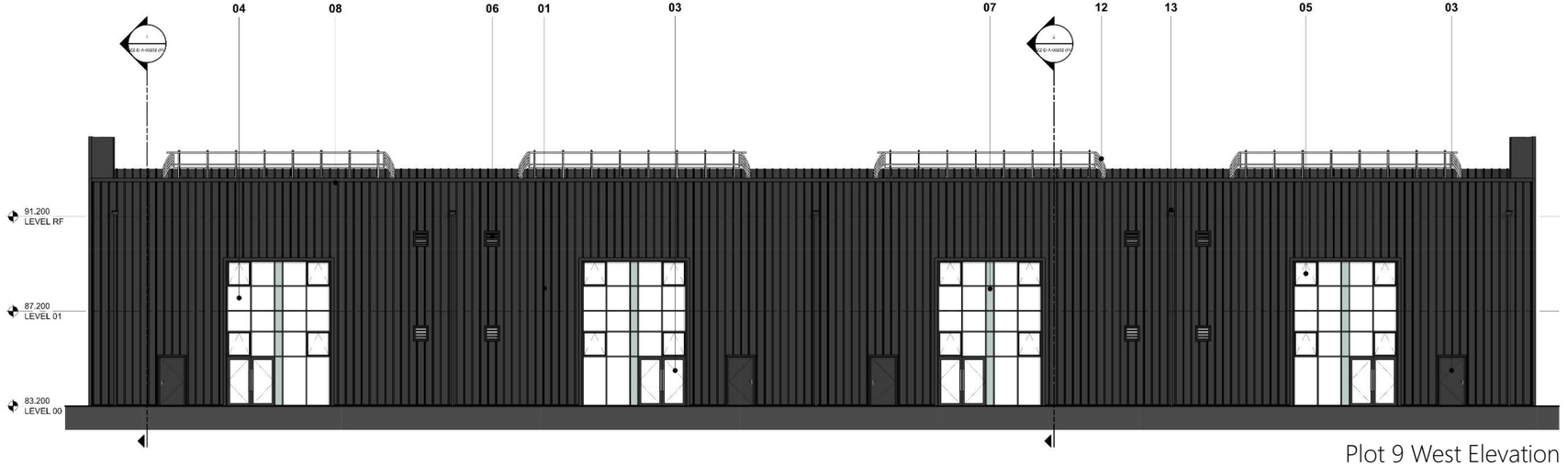


Plot 12 South Elevation

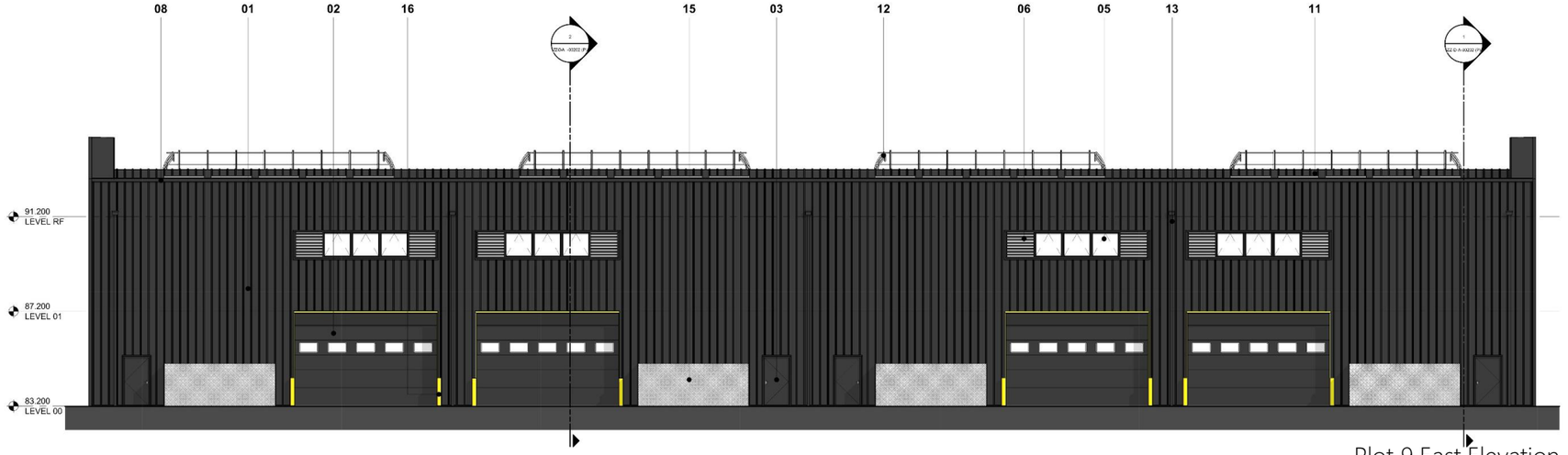
STATUS A4 - AUTHORISED (MSC) - no Comments

Buildings

Appearance



Plot 9 West Elevation



Plot 9 East Elevation

PROPOSED MATERIALS

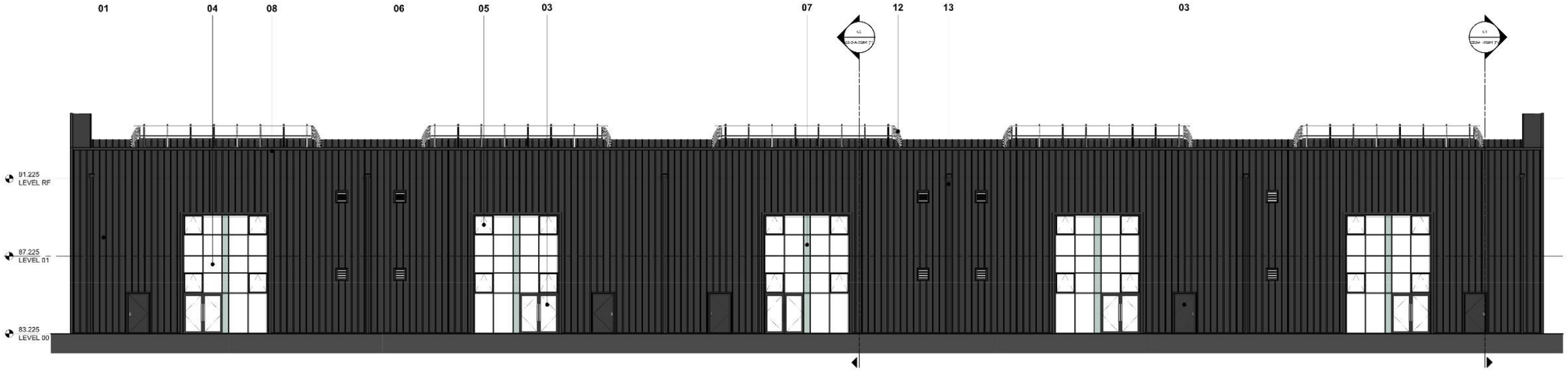
01. PPC ALUMINIUM COMPOSITE CLADDING (TRAP / MICR)
COLOUR: BLACK / FEATURE (TBC)
02. PPC OVERHEAD SECTIONAL DOOR
COLOUR: BLACK (TBC)
03. PPC ALUMINIUM DOOR (GLAZED, SOLID, LOUVRE)
COLOUR: BLACK (TBC)
04. PPC ALUMINIUM CURTAIN WALL
COLOUR: BLACK (TBC)
05. PPC ALUMINIUM WINDOW
COLOUR: BLACK (TBC)
06. PPC ALUMINIUM LOUVRE
COLOUR: BLACK (TBC)
07. INSULATED GLAZED SPANDREL PANEL
COLOUR: GREY (TBC)
08. PPC ALUMINIUM FLASHING
COLOUR: BLACK / FEATURE (TBC)
09. PPC ROOF HATCH
COLOUR: BLACK (TBC)
10. PPC ALUMINIUM ROOFLIGHTS
COLOUR: BLACK (TBC)
11. PHOTOVOLTAIC PANELS (ARRANGEMENT INDICATIVE)
COLOUR: N/A
12. BALLASTED HANDRAIL
COLOUR: GALVANISED STEEL (TBC)
13. RAINWATER GOODS
COLOUR: BLACK (TBC)
14. FEATURE SIGNAGE (INDICATIVE - TBC)
COLOUR: STAINLESS STEEL (TBC)
15. AIR PUMP UNIT CAGE
COLOUR: GALVANISED STEEL (TBC)
16. SAFETY BOLLARD
COLOUR: TBC

NOTE: BAT BOX NUMBERS AND LOCATIONS TBC

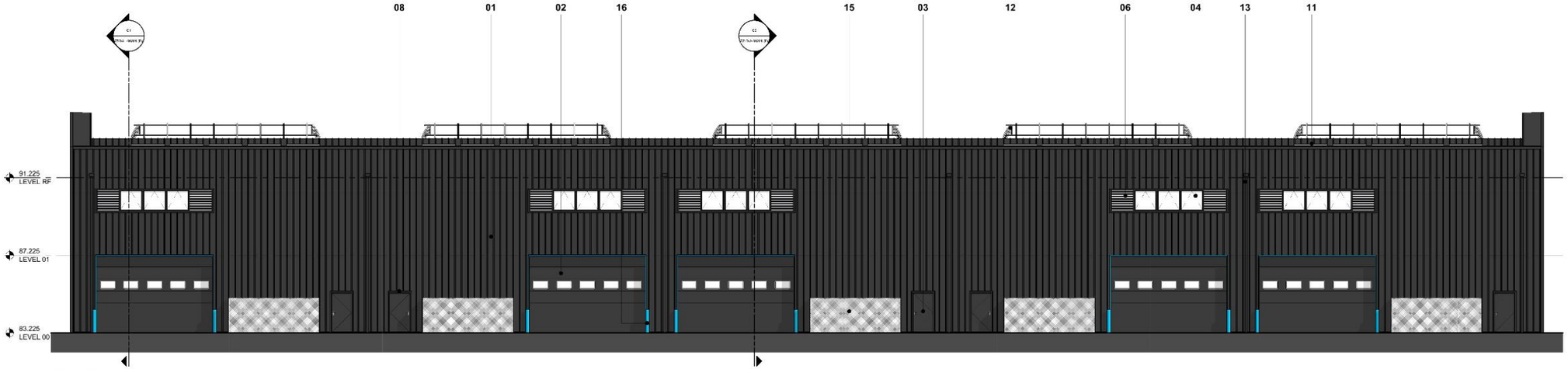
STATUS A4 - AUTHORISED (MSC) - no Comments

Buildings

Appearance



Plot 12 East Elevation



Plot 12 West Elevation

PROPOSED MATERIALS

01. PPC ALUMINIUM COMPOSITE CLADDING (TRAP / MICR)
COLOUR: BLACK / FEATURE (TBC)

02. PPC OVERHEAD SECTIONAL DOOR
COLOUR: BLACK (TBC)

03. PPC ALUMINIUM DOOR (GLAZED, SOLID, LOUVRE)
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COLOUR: BLACK (TBC)

10. PPC ALUMINIUM ROOFLIGHTS
COLOUR: BLACK (TBC)

11. PHOTOVOLTAIC PANELS (ARRANGEMENT INDICATIVE)
COLOUR: N/A

12. BALLASTED HANDRAIL
COLOUR: GALVANISED STEEL (TBC)

13. RAINWATER GOODS
COLOUR: BLACK (TBC)

14. FEATURE SIGNAGE (INDICATIVE - TBC)
COLOUR: STAINLESS STEEL (TBC)

15. AIR PUMP UNIT CAGE
COLOUR: GALVANISED STEEL (TBC)

16. SAFETY BOLLARD
COLOUR: TBC

NOTE: BAT BOX NUMBERS AND LOCATIONS TBC

STATUS A4 - AUTHORISED (MSC) - no Comments

Buildings

Appearance

A shared but simple palette is proposed of high-quality industrial type materials with strong but simple forms and detailing.

The contemporary contrast of black metal trapezoidal cladding 'wrap' around the units and feature gable cladding for identity and wayfinding. All complemented by curtain wall glazing and rooflights. Finish and colours are influenced by the adjacent New Hub but not dictated to establish a new vernacular for the estate.

Some precedent examples are shown to the side as examples of the aesthetic.

STATUS A4 - AUTHORISED (MSC) - no Comments

7
RESOURCES

Resources

Efficient and Resilient Scheme

Introduction
The mechanical & electrical services strategy for Plots 9 & 12 of Leconfield Industrial estate has been developed to ensure compliance with the latest building regulations and Part L compliance documents (2021). Although the scheme does not have net zero carbon in operation targets, the systems have been designed to achieve the lowest possible building emissions rate (BER). The units will be installed with LZC technology (Low / Zero Carbon) in the form of air source heat pumps and large photovoltaic (PV) arrays. The PV systems will generate electricity to provide space and domestic hot water heating, whilst also contributing to the power requirements of the incoming business. The mechanical and electrical services in the project have been developed closely with the client and contractor to produce a solution which gives the end users as much flexibility in the workspace as possible whilst also maintaining and comfortable indoor climate.

Approach
A comprehensive thermal modelling exercise has been undertaken at the early stages of design to inform and optimise the energy performance of the proposed buildings. This modelling process focused first on delivering a low-energy building envelope, maximising passive design measures such as insulation, airtightness, and natural ventilation potential before the specification of active systems.

The objective was to reduce operational energy demand while maintaining a comfortable internal environment for occupants. Following this, the thermal model was used to assess the building's performance against CIBSE TM52 criteria for adaptive thermal comfort. This ensures that the design can maintain comfortable internal conditions under typical summer scenarios without a reliance on mechanical cooling.

In parallel, internal CO_2 concentrations were evaluated to confirm adequate ventilation strategies and occupant wellbeing. These assessments informed key architectural and MEP design decisions, including window opening strategies, ventilation rates, thermal mass optimisation, and zoning. Based on the thermal and environmental performance requirements, the proposed MEP systems have been designed to be both energy-efficient and fit for purpose. Mechanical systems have been sized based on the refined thermal model outputs, and low-carbon technologies are being integrated where appropriate. The approach ensures the provision of high-performing building services that align with environmental performance targets, enhance occupant comfort, and support long-term operational efficiency.

Mechanical Services The units within Plots 9 & 12 will be produced as shell & core offerings to allow the incoming tenants to fit out the internal areas to suit the needs of their incoming business.

Ventilation
The units will not be provided with ventilation for the shell & core and will require fit-out. Two external Louvers will be installed on the rear façade, ready for fresh air and exhaust connections associated with the main ventilation systems. Two smaller exhaust louvres will be installed on the front façade, ready for connection of toilet extract systems. These systems will need to meet the minimum performance criteria set out in the shell & core Part L BRUKL document.

Heating
The units will be installed with high efficiency air source heat pumps capable of heating the unit when fitted out. Background heating only will be provided as frost protection for the shell & core fit out. The heating pipework will extend to the plant room allowing the incoming tenants to extend new heating circuits from the plant room. Each tenant will then fit out the space heating to suit their requirements.

Water
Mains Cold Water will enter each unit complete with double check valve and stop cock. The pipework will extend to the plant room to connect to the heating fill device before being capped for future extension to serve the tenant requirements.

Electrical Services It is proposed to adapt the site wide High Voltage (HV) infrastructure to introduce a dedicated 1.5MVA substation to provide low voltage electricity to Plots 9 and 12 in addition to two feeder pillars situated across the site to provide external lighting and charging supplies for Electric vehicles. From the substation individual ducting system shall be installed to provide low voltage single connections to each of the buildings.

Plot 09 – Consists of a single supply to a single MCCB and associated switchboard located within an external kiosk adjacent the building. Power and telecoms will be provided by four individual Low Voltage and Openreach lines entering each section of the building within a dedicated mechanical and electrical utility cupboard before terminating into a suitably sized Distribution Board and Distribution Point respectively.

Plot 12 – Consists of a single supply to a single MCCB and associated switchboard located within an external kiosk adjacent the building. Power and telecoms will be provided by five individual Low Voltage and Openreach lines entering each section of the building within a dedicated mechanical and electrical utility cupboard before terminating into a suitably sized Distribution Board and Distribution Point respectively.

8
LIFESPAN

Lifespan

The following minimum life expectancies are proposed.

Element	Element Name	Min. Life Expectancy (Years)
Structure	Foundations	60
Structure	Slab	60
Structure	Walls	60
Structure	Upper Floors	60
Structure	Roof Structure	60
Structure	Structural Frame	60
structure	Stairs	60
Underground Drainage	Pipes, inspection chambers	60
External Envelope	Roof Covering	25
External Envelope	External walls / cladding	25
External Envelope	Windows and external doors	25
External Envelope	Rooflights	25
Rainwater Disposal	Rainwater pipes, hoppers and gutters	25

STATUS A4 - AUTHORISED (MSC) - no Comments